City and County DWSP Ordinances

APPENDIX C

ORDINANCE 2002-2

DRINKING WATER SOURCE PROTECTION ORDINANCE

BE IT ORDAINED by the Mayor and Council of the City of Pleasant View in Council duly assembled and it is hereby ordained by the authority of same that the following ordinance known as the Drinking Water Source Protection Ordinance is adopted and made a part of the Code of Ordinance of the City of Pleasant View, to wit:

Section 1. Short title and purpose.

(a) This ordinance shall be known as the "Drinking Water Source Protection Ordinance."

(b) The purpose of this ordinance is to ensure the provision of a safe and sanitary drinking water supply for the City by the establishment of drinking water source protection zones surrounding the wellheads for all wells which are the supply sources for the City water system and by the designation and regulation of property uses and conditions which may be maintained within such zones.

Section 2. Definitions. When used in this ordinance, the following words and phrases shall have the meanings given in this Section:

(a) Design standard - means a control that is implemented by a potential contamination source to prevent discharges to the ground water. Spill protection is an example of a design standard.

(b) Land management strategies - means zoning and non-zoning controls which include, but are not limited to, the following: zoning and subdivision ordinances, site plan reviews, design and operating standards, source prohibitions, purchase of property and development rights, public education programs, ground-water monitoring, household hazardous waste collection programs, water conservation programs, memoranda of understanding, written contracts and agreements, and so forth.

(c) Pollution source - means point source discharges of contaminants to ground water or potential discharges of the liquid forms of "extremely hazardous substances" which are stored in containers in excess of "applicable threshold planning quantities" as specified in SARA Title III. Examples of possible pollution sources include, but are not limited to, the following: storage facilities that store the liquid forms of extremely hazardous substances, septic tanks, drain fields, Class-V underground injection wells, landfills, open dumps, landfilling of sludge and septage, manure piles, salt piles, pit privies, and animal feeding operations with more than ten animal units. The following clarify the definition of pollution source:

(1) Animal feeding operation - means a lot or facility where the following conditions are met: animals have been or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period; and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered to be a single feeding operation if they adjoin each other, if they use a common area, or if they use a common system for the

disposal of wastes.

(2) Animal unit - means a unit of measurement for any animal feeding operation calculated by adding the following numbers; the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

(3) Extremely hazardous substances - means those substances which are identified in the Sec. 302(EHS) column of the "TITLE III LIST OF LISTS - Consolidated List of Chemicals Subject to Reporting Under SARA Title III," (EPA 560/4-91-011).

(d) Potential contamination source - means any facility or site which employs an activity or procedure which may potentially contaminate ground water. A pollution source is also a potential contamination source.

(e) Regulatory agency - means any governmental agency with jurisdiction over hazardous waste as defined herein.

(f) Sanitary landfill - means a disposal site where solid wastes, including putrescible wastes, or hazardous wastes, are disposed of on land by placing earth cover thereon.

(g) Septic tank/drain-field systems - means a system that is comprised of a septic tank and a drain-field which accepts domestic wastewater from buildings or facilities for subsurface treatment and disposal. By their design, septic tank/drain-field system discharges cannot be controlled with design standards.

(h) Wellhead - means the upper terminal of a well, including adapters, ports, seals, valves and other attachments.

Section 3. Establishment of drinking water source protection zones. There is hereby established use districts to be known as zones one, two, three, and four of the drinking water source protection area identified and described as follows:

(a) **Zone one** is the area within a 100-foot radius from the wellhead.

(b) **Zone two** is the area within a 250-day ground-water time of travel to the wellhead, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer.

(c) **Zone three** (waiver criteria zone) is the area within a 3-year ground-water time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer.

(d) **Zone four** is the area within a 15-year ground-water time of travel to the wellhead, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer.

Section 4. Permitted uses. The following uses shall be permitted within drinking water source protection zones:

(a) Any use permitted within existing agricultural, single family residential, multi-family residential, and commercial districts so long as uses conform to the rules and regulations of the regulatory agencies.

(b) Any other open land use where any building located on the property is incidental and accessory to the primary open land use.

Section 5. Prohibited uses. The following uses or conditions shall be and are hereby prohibited within drinking water sources protection zones, whether or not such use or condition may otherwise be ordinarily included as a part of a use permitted under Section 4 of the ordinance.

(a) **Zone one** - The location of potential contamination sources as defined herein, unless they are controlled with design standards.

(b) **Zone two** - The location of pollution sources as defined herein, unless their contaminated discharges are controlled with design standards.

(c) **Zones three and four** - The location of potential contamination sources unless they are controlled through land management strategies.

Section 6. Administration. The policies and procedures for administration of any source protection zone established under this ordinance, including without limitation those applicable to nonconforming uses, exceptions, enforcement, and penalties, shall be the same as provided in the existing zoning ordinance for the City of Pleasant View, as the same is presently enacted or may from time to time be amended.

This Ordinance shall be effective as of March 26, 2002. All ordinances and parts or ordinances in conflict herewith shall not be and the same are hereby repealed.

ENACTED AND ADOPTED this 26th day of March, 2002.

Mayor, Pleasant View City

Attest:
City Recorder

COVER SHEET

FAX

To: CHRIS
Fax #: 621-6627
Subject: Protection Zones and Sewer
Date: December 5, 1997
Pages: 5, including this cover sheet.

COMMENTS:

Here is a copy of the County ordinance which deals with connections to sewer within 300 feet of sewer lines.

We do not have an ordinance through Engineering or Planning which deals the well protection zones. These requirements come from the Health Dept. using the State Rules.

If there is other information you need, let me know and we will try to help.

From the desk of...

Curtis Christensen
Weber County Engineer
Weber County
2380 WASHINGTON BLVD. STE. 240
Ogden, Utah 84401-1473

801-399-8371
Fax: 801-399-8862

TITLE 25

SEWERS

Chapter 1. General Provisions.
(Except where otherwise noted, the Provisions of this Title are excerpted for Ord. # 1-59, passed Feb. 3, 1959.)

CHAPTER 1

General Provisions

Section 25-1-1 Connection to Sewer Required.
25-1-2 Permit Required.
25-1-3 Non-Complying Facilities a Nuisance - Condemnation.
25-1-4 Conditions When Unlawful to Construct Privy Vault.
25-1-5 Ibid.
25-1-6 Conditions When Unlawful to Maintain Privy Vault - Notice.
25-1-7 Unlawful to Fail to Connect to Sewer - Notice.
25-1-8 Unlawful to Maintain Privy Vault after Notice.
25-1-9 Penalties.

25-1-1 Connection to Sewer Required. The owner of all houses, buildings or properties used for human occupancy, employment, commercial, institutional, recreational or other like purposes, situated within the unincorporated areas of Weber County, any part of which building is within 300 feet of any street, alley, court, passageway or area in which a public sewer or sewer owned or operated by any special improvement sanitary sewer district is in existence and use in the county outside of the incorporated limits of towns and cities, is hereby required

at his expense to install suitable facilities therein, and to connect such facilities with the proper public sewer in accordance with the provisions of this Title within 30 days after the date that the said public district sewer line is available for use, provided said public or district sewer line is within 300 feet of any part of such building discharging sanitary or industrial waste.(1970 Rev.)

25-1-2 Permit Required. It shall be unlawful for any person to connect to said sewer system without first obtaining a permit from the County Plumbing Inspector and no permits shall be issued for such sewer connections by the County Plumbing Inspector unless the plumbing and the building to be serviced shall comply with the requirements and regulations of the Weber County and the State of Utah Plumbing Code and unless the applicant shall have complied with the requirements of the sewer district and paid the fees required for the connection.

25-1-3 Non-Complying Facilities a Nuisance - Condemnation. Any privy vaults, septic tanks or cesspools constructed or maintained in violation of the provisions of this Title are hereby declared to be public nuisance and it shall be the duty of the County Attorney to proceed forthwith with condemnation proceedings declaring the subject matter of such violation to be a nuisance, and also to proceed forthwith with the filing of a complaint for the criminal violation of this title.(1970 Rev.)

25-1-4 Conditions when Unlawful to Construct Privy Vault. It shall be unlawful for the owner, or his agent, or other persons having charge of or occupying any property upon which a building shall have been or is being constructed for residential, commercial or industrial use, any part of which building is within 300 feet of the street, alley, court, passageway or area in which public or district sewer is in existence and use in the County outside the incorporated limits of towns and cities to construct of permit to be constructed any privy vault, septic tank or cesspool into which said building is to be connected.

25-1-5 Ibid. It shall be unlawful for any person to construct, cause or permit to be constructed upon property owned or controlled by him any privy vault, septic tank or cesspool within 300 feet of any street, alley, court, passageway or area in which a public sewer in then in existence and use in the County outside the incorporated limits of towns and cities.

25-1-6 Conditions When Unlawful to Maintain Privy Vault - Notice. It shall be unlawful for the owner, or his agent, or other person having charge of or occupying any property upon which a building shall have been constructed for residential, commercial or industrial use, any part of which building is within 300 feet of any street, alley, court, passageway or area in which a public or district sewer is in existence and use in the County outside the incorporated limits or towns and cities after the owner or his agent or other person having charge of or occupying said property has been given written notice by the Weber County Plumbing Inspector that an accepted public sewer is ready to receive connections therewith, and 30 days have expired, to maintain or use or cause or permit to exist any privy vault, septic tank or cesspool to which said building is connected or which is used by the occupants of said building.

25-1-7 Unlawful to Fail to Connect to Sewer - Notice. It shall be unlawful for the owner, or his agent or other person having charge of or occupying any property upon which a building shall have been constructed for residential, commercial or industrial use, any part of which building is within 300 feet of any street, alley, court, passageway or area in which a public or district sewer is in existence and use in the County outside the incorporated limits of towns and cities, after the owner or his agent or other person having charge of or occupying the said property, has been given notice as herein provided that an accepted public or district sewer is ready to receive connections therewith, and 30 days have expired, to have the plumbing in such building remain unconnected to the public sewer.

25-1-8 Unlawful to Maintain Privy Vault After Notice. It shall be unlawful for the owner, of his agent or other person having charge of or occupying any building used for residential, commercial or industrial purposes after the owner or his agent or other person having charge of or occupying said property has been given notice as above provided that an accepted public sewer is ready to receive connections therewith, and 30; days have expired, to maintain or use or cause or permit to exist any privy vault, septic tank or cesspool to which said building is connected or which is used by the occupants of said building, which privy vault, septic tank or cesspool is within 300 feet of any street, alley, court, passageway or area in which a public sewer is in existence and use in the County outside the incorporated limits or towns and cities.

25-1-9 Penalties. The failures, neglect or refusal by persons in this Title charged with the duty of connecting with public or district sewer, as above provided, and any other violations of the provisions of the above Title, shall be guilty of a Class B misdemeanor, and upon conviction shall be punished as provided by the laws of the State of Utah for Class B misdemeanors.(Ord. #4-87, January 5, 1987)

Each day in which such violation shall continue shall be deemed a separate offense. (1970 Rev.)

MINUTES
OF THE BOARD OF COMMISSIONERS OF WEBER COUNTY
Tuesday, October 7, 2008 - 10:00 a.m.
Commission Chambers, Weber Center, Ogden, Utah
In accordance with the requirements of Utah Code Annotated Section 52-4-7(1)(d), the County Clerk records in the minutes the names of all citizens who appear and speak at a County Commission meeting and the substance "in brief" of their comments. Such statements may include opinion or purported facts. The County does not verify the accuracy or truth of any statement but includes it as part of the record pursuant to state law.Commissioners Present: Jan M. Zogmaister, Chair, Craig L. Dearden, and Kenneth A. Bischoff.

2. Public Hearing to amend the Weber County Zoning Ordinance by adding Chapter 41 Drinking Water Source Protection

1. Jim Gentry, County Planning Department, stated that the past legislative session required counties to adopt drinking water source protection zones surrounding wellheads and springs used by public water systems (HB 40). Mr. Gentry noted that this was a mitigation-type of ordinance and that it applied to incorporated and unincorporated areas of Weber County for community water companies of 15 or more connections only (not individual wells). A map was included in the commissioners' packets indicating the four different zones. In addition to the County Attorney's Office, the State Division of Drinking Water, Health Department, and several water companies reviewed the ordinance and no comments were received back from them.

Chair Zogmaister invited public comments. Scott Paxman, of Weber Basin Water Conservancy District, expressed thanks to the county in instituting an ordinance protecting water systems, noting that as a conservancy district they did not have planning and zoning authority to protect ground water sources. Mr. Paxman did not find in Chapter 41 whether the public water systems would be notified if there were violations/variances from developers, and he suggested that the county also put this in policy. Mr. Gentry stated that if the county was aware of any violations, the water companies would be notified. If the county knows it involves the district, it will notify them. Chair Zogmaister asked how notifying the district would be helpful and Mr. Paxman said that they could start testing the well for different water quality compounds. He also said that HB 40 indicated that the county ordinance would apply to incorporated and unincorporated areas unless the municipalities passed an ordinance and Mr. Gentry responded that this was correct, that if cities adopted their own ordinances those would supercede the county's ordinance.
3.Commissioner Dearden moved to adjourn the public hearing and reconvene the public meeting; Commissioner Bischoff seconded, all voting aye.

4. Action on public hearing:

F.2. - Public Hearing to add Chapter 41 Drinking Water Source Protection - Ordinance 2008-34
Commissioner Dearden moved to adopt Ordinance 2008-34 adding Chapter 41, Drinking Water Source Protection, to the Zoning Ordinance; Commissioner Bischoff seconded.
Roll Call Vote:
Commissioner Dearden aye
Commissioner Bischoff aye
Chair Zogmaister aye

Drinking Water Source Protection

From Weber County Wiki

41-1 Purpose and Intent

The purpose of this ordinance is to ensure the provision of a safe and sanitary drinking water supply to the residents of Weber County who receive water for culinary and domestic use from public water systems in the County by the establishment of drinking water source protection zones surrounding the wellheads and springs for all wells and springs used by public water systems in the County and by the designation and regulation of property uses and conditions that may be maintained within such zones.

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41-2 Definitions

When used in this ordinance, the following words and phrases shall have the meanings given in this Section:

Best Management Practices
: A practice or combination of practices determined to be the most effective practicable means of conducting a land use activity to minimize the potential for becoming a pollution source (including technological, economic, and institutional considerations).

Design Standard
: Established State or National Standards for the design, construction, placement, or maintenance of a potential contamination source to prevent discharges to the ground water. (See also "Secondary Containment"). A control that is implemented by a potential contamination source to prevent discharges to the groundwater. Spill protection is an example of a design standard.

Drinking Water Source Protection (DWSP) Zone
: The surface and subsurface area surrounding a groundwater source of drinking water supplying a public water system through which contaminants are reasonably likely to move toward and reach such groundwater source.

Groundwater Source
: Any well, spring, tunnel, adit, or other underground opening from or through which groundwater flows or is pumped from subsurface water-bearing formations.

Pollution Source

Point source discharges of contaminants to ground water or potential discharges of the liquid forms of "extremely hazardous substances" which are stored in containers in excess of "applicable threshold planning quantities" as specified in SARA Title III. Examples of possible pollution sources include, but are not limited to, the following: storage facilities that store the liquid forms of extremely hazardous substances, septic tanks, drain fields, class V underground injection wells, landfills, open dumps, landfilling of sludge and septage, manure piles, salt piles, pit privies, drain lines, and animal feeding operations with more than ten animal units.

The following definitions clarify the meaning of "pollution source:"

Animal Feeding Operation

A lot or facility where the following conditions are met: animals have been or will be stabled or confined and fed or maintained for a total of forty-five (45) days or more in any twelve (12) month period, and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered to be a single feeding operation if they adjoin each other, if they use a common area, or if they use a common system for the disposal of wastes.

Animal Unit

A unit of measurement for any animal feeding operation calculated by adding the following numbers; the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

Extremely Hazardous Substances

Those substances which are identified in the Sec. 302(EHS) column of the "TITLE III LIST OF LISTS - Consolidated List of Chemicals Subject to Reporting Under SARA Title III," (EPA 560/4-91-011). A copy of this document may be obtained from: Section 313 Document Distribution Center, P.O. Box 12505, Cincinnati, OH 41212.

Hazardous Waste

A waste with properties that make it dangerous or potential harmful to human health or to the environment.

Potential Contamination Source

Any facility or site, which employs an activity or procedure, which may potentially contaminate ground water. A pollution source is also a potential contamination source.Such term includes collection, treatment, storage and distribution facilities under control of the operator and used primarily in connection with the system. Additionally, the term includes collection, pretreatment or storage facilities used primarily in connection with the system but not under such control.

Sanitary Landfill

A disposal site where solid wastes, including put rescible wastes, or hazardous wastes, are disposed of on land by placing earth cover thereon.

Sanitary Sewer Line

A pipeline that connects a residence or other building with a sanitary sewer.

Septic Tank/Drain-field System

A system which is comprised of a septic tank and a drain field which accepts domestic wastewater from buildings or facilities for subsurface treatment and disposal. By their design, septic tank/drain field system discharges cannot be controlled with design standards.

Spring

The ground surface outlet of a natural underground spring including Spring collection and control boxes, valves, piping and other attachments.

Storm Water Infiltration Structure

A structure that is intended to discharge storm water so that it infiltrates groundwater.

Underground Storage Tanks

Underground tanks used for the storage of gas, oil, or other hazardous substances.

Wellhead

The physical structure, facility, or device at the land surface from or through which groundwater flows or is pumped from subsurface, water-bearing formations.

SARA Title III

The Superfund Amendment and Reauthorization Act section found in 40 CFR 300-302, pertaining to emergency response and right-to-know.

Source Protection Zone

Means the specified surface and subsurface area surrounding a ground-water source of likely to move toward and reach such ground-water source. These zones shall have the approval of the State of Utah, Division of Drinking Water as described in R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources and as stated in Section 41-3.

Time of Travel Distance

The distance that groundwater will travel in a specified time. This distance is generally a function of the permeability and slope of the aquifer. Time of Travel is determined from hydrological studies and is approved by the State Department of Environmental Quality, Division of Drinking Water.

Public Water System

A system, either publicly or privately owned, providing water for human consumption and other domestic uses, which:

- Has at least 15 service connections, or
- Serves an average of at least 25 individuals daily at least 60 days out of the year.

Secondary Containment

A type of system that is used to provide release detection prevention, such as trays under containers, floor curbing or other systems designed to hold materials or liquids that may discharge from containers holding regulated substances. Examples include a double-walled tank, a double-walled integral piping system, or a single-walled tank or integral piping system that is protected by an enclosed concrete vault, liner, or an impervious containment area.

41-3 Establishment of Drinking Water Source Protection Zones

There are hereby established use districts to be known as zones one, two, three, and four, of the drinking water source protection area, or alternatively the Management Area. These zones shall have the approval of the State of Utah, Division of Drinking Water as described in R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources and are identified and described as follows:

1. Zone One. Is the area within a 100-foot radius from the wellhead or margin of the collection area.
2. Zone Two. Is the area within a 250-day groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the groundwater divide, whichever is closer.
3. Zone Three. Is the area within a 3-year groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the groundwater divide, whichever is closer.
4. Zone Four. Is the area within a 15-year groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the groundwater divide, whichever is closer.
5. Management area means the area outside of zone one and within a two-mile radius where the optional Two-mile Radius Delineation Procedure has been used to identify a protection area, as described in the Utah, Division of Drinking Water R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources. This area shall be treated as for Zone 2.

In some cases, such as bedrock areas, Zones 2, 3, and 4 are overlapping due to the inability to determine time of travel. These are sensitive areas. In these cases, the zone should be protected as for Zone 2.

41-4 Identification of Public Water Systems and their Drinking Water Source Protection Zones

After a public water system in Weber County submits its drinking water source protection plan to the Utah Division of Drinking Water pursuant to the Division's drinking water source protection regulations, as amended, and the division provides written notice to the public water system of its approval of the plan, the public water system shall, at its sole cost and expense, provide the Weber County Building Division, Weber County Planning Division, Weber County Health Department and Surveyor's Office with a map, and additional information required by the Office, identifying the four drinking water source protection zones the public water system designates for each of its sources of groundwater for drinking water in the plan approved by the Division. The Weber Planning Division shall then incorporate this information on a map of the County that it shall prepare and maintain, which identifies each public water system's sources of groundwater for drinking water and the four drinking water source protection zones for each source of groundwater. It shall be the duty of each public water system, at its sole cost and expense, to submit any updated information as necessary to the Weber County Planning Division and the Weber County Health Department.

41-5 Allowed Uses

1. In Zones One, Two, Three, and Four, each use established before the effective date of this Ordinance, and uses incidental and accessory to such use, may be continued in the same manner thereafter, provided that such use is not determined by any court of competent jurisdiction to be a nuisance under the provisions of federal, state, and/or local laws or regulations.
2. In addition to the uses permitted under 41-5.1 herein, the following uses, including uses incidental and accessory to that use, shall be allowed within the respective drinking water source protection zones:
    1. Zone One.
        1. No uses in addition to that allowed under Section 41-5.1 herein are allowed in Zone One.
    2. Zone Two.
        1. Use of single or multiple-family residential dwellings, commercial, or institutional uses established on or after the effective date of this Ordinance, provided that such uses are connected to a sanitary sewer system.
    3. Zone Three.
        1. Use of single or multiple-family residential dwellings, commercial, or institutional uses established on or after the effective date of this Ordinance.
    4. Zone Four.
        1. Use of single or multiple-family residential dwellings, commercial, or institutional uses established on or after the effective date of this Ordinance.
        2. The tilling of the soil and the raising of crops provided that the use of fertilizers and pesticides is accomplished within applicable federal, state, and/or local requirements.
        3. The pasturing of livestock provided all forage is raised on the pastured area.
    5. In addition to the permitted uses specified in Section 5.1 and 5.2 herein, certain of the uses prohibited in Zones Two, Three, and Four pursuant to Section 6 herein may be allowed in Zones Two, Three, and Four, respectively, if design standards are implemented for the specific use that will prevent contaminated discharges to ground water.

41-6 Prohibited Uses

Subject to Section 5.1 herein, the following uses are prohibited within the following drinking water source protection zones:

1. Zone 1. All uses that fall within the definition in this Ordinance of "pollution source" or "potential contamination source," including the following, are prohibited in Zone One:
    1. Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).
    2. Sanitary landfills.
    3. Hazardous waste or material disposal sites.
    4. Septic tanks/drain field systems.
    5. Sanitary sewer lines within 150 feet of a wellhead or spring collection area.
    6. Underground storage tanks.
    7. Storm water infiltration structures.
    8. Any pollution source as defined herein or in Rule 309-113-101, as amended, of the Division of Drinking Water's drinking water source protection regulations.
    9. Agriculture industries including, but not limited to, intensive feeding operations such as feedlots, dairies, fur breeding operations, poultry farms, etc.
2. Zone Two.
    1. Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).
    2. Sanitary landfills.
    3. Hazardous waste or material disposal sites.
    4. Septic tanks/drain field systems.
    5. Sanitary sewer lines within 150 feet of a wellhead or spring collection area.
    6. Underground storage tanks.
    7. Storm water infiltration structures.
    8. Any pollution source as defined herein or in Rule 309-113-101, as amended, of the Division of Drinking Water's drinking water source protection regulations.
    9. Agriculture industries including, but not limited to, intensive feeding operations such as feedlots, dairies, fur breeding operations, poultry farms, etc.
3. Zone Three.
    1. Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).
    2. Sanitary landfills.
    3. Hazardous waste or material disposal sites.
    4. Agriculture industries including, but not limited to, intensive feeding operation such as feedlots, dairies, fur breeding operations, poultry farms, etc.
4. Zone Four.
    1. Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).
    2. Sanitary landfills.
    3. Hazardous waste or material disposal sites.

41-7 Sewers within Drinking Water Source Protection Zones and Management Areas

Sanitary sewer lines may not be located within zones one and two or a management area unless the criteria identified below is met. If sewer lines are located or planned to be located within zones one and two or a management area, the developer must submit a Preliminary Evaluation Report demonstrating that they comply with this criteria. Sewer lines that comply with these criteria may be assessed as adequately controlled potential contamination sources.

1. Zone One and Two. If the conditions specified in 41-7(1)(A and B) below are met, all sewer lines within Zone One and Two shall be constructed in accordance with State requirement and must be at least 10 feet from the wellhead.
    1. There is at least five (5) feet of suitable soil between the bottom of the sewer lines and the top of the maximum seasonal ground-water table or perched water table. (Suitable soils contain adequate sand/silt/clay to act as an effective effluent filter within its depth for the removal of pathogenic organisms and fill the voids between coarse particles such as gravel, cobbles, and angular rock fragments); and
    2. There is at least five (5) feet of suitable soil between the bottom of the sewer line and the top of any bedrock formations or other unsuitable soils. Bedrock formations include formations that have such a low permeability that they prevent the downward passage of effluent. Bedrock formations that have open joints or solution channels, which permit such rapid flow that effluent is not renovated, are also considered unacceptable. Other unsuitable soils include those with coarse particles such as gravel, cobbles, or angular rock fragments with insufficient soil to fill the voids between the particles. Solid or fractured bedrock such as shale, sandstone, limestone, basalt, or granite are unacceptable.
2. Zones One and Two - If the conditions identified in R309-600-13(3)(a)(i and ii) above cannot be met, any sewer lines within zones one and two or a management area shall be constructed in accordance with R309-515-6(4) and must be at least 300 feet from the wellhead or margin of the collection area.

41-8 Drinking Water Source Protection Requirements

Except as provided in Section 8(a) herein, following the effective date of this Ordinance, no building permit or other form of approval from the County to develop or use real property within the County shall be issued until the applicant establishes that its proposed development or use of real property complies with the requirements of this Ordinance.

41-9 Transition

1. Until such time that a public water system submits its drinking water source protection plan to the Utah Division of Drinking Water, the Division provides written notice to the public water system of its approval of the plan, and the public water system provides the Weber County Building Division, Weber County Health Department, Weber County Planning Division and Surveyor's Office with a map and any additional information required by the Office identifying the public water system's sources of groundwater for drinking water and the four drinking water source protection zones for each of the sources, no building permit or other form of approval from the County to develop or use real property within the County shall be issued unless the applicant establishes that its proposed development or use of real property complies, with the source protection plan.
2. After a public water system submits its drinking water source protection plan to the Utah Division of Drinking Water, the Division provides written notice to the public water system of its approval of the plan, and the public water system provides the Weber County Building Division, Weber County Health Department, Weber County Planning Division and Surveyor's Department with a map and any additional information required by the Office identifying the public water system's sources of groundwater for drinking water and the four drinking water source protection zones for each of the sources, no building permit or other form of approval from the County to develop or use real property within the County shall be issued unless the applicant establishes that its proposed development or use of real property complies with the requirements of this Ordinance.

41-10 Administration

The policies and procedures for administration of any source protection zone established under this ordinance, including without limitation those applicable to existing nonconforming uses, enforcement and penalties, shall be the same as provided in the existing land use ordinance for Weber County, as presently enacted except that the Weber County Technical Committee may grant a variance. The technical committee consists of a member from the Weber County Building Division, Weber County Engineering, and the Weber County Health Department. The Weber County Planning Division shall provide support to the technical committee. If it is necessary to have additional expertise evaluate the variance, it shall be at the expense of the entity requesting the variance. The recommendation relative to the requested variance shall be documented and filed with the Weber County Planning Division, and a copy returned the requester.

The policies and procedures or administration of any drinking water source protection established under this ordinance, authorize a retail water supplier or wholesale water supplier may seek enforcement of the ordinance in a district court located within the county as permitted by Utah State Code 19-4-113, or as subsequently amended. This Ordinance shall take effect 15 days after its adoption and first publication. Adoptions of a Drinking Water Source Protection Ordinances by a Cities or Town, shall supersede the County's source Drinking Water Source Protection Ordinance.

Informational Mailers &
Hazard Facts Sheets

APPENDIX D

Pleasant View City Little Missouri Spring
Water System No. 29014

New Potential Contamination Source Hazard Survey

DWSP Management Area/Region	
Facility Name	
Address	
Activity	
Owner/Operator	
Contact Person	

Identify Any Potential Contamination Source Hazards Which Will Be Located At Your Facility

	Material	Amount used/stored
	PCB	
	Dioxin	
	Crude Oil	
	Gasoline	
	Diesel Oil	
	Other Distillate Fuel	
	Asphalt or other Residual	
	Animal or Vegetable Oil	
	Waste Oil	
	Other Oil	
	Petroleum Solvents	
	Naptha	
	Mineral Spirits	
	Vermin Poisons	
	Insecticides	
	Nematicides	
	Herbicides	
	Fungicides	
	Antibiotics	
	Fertilizers	
	Metals	
	Acids	
	Organic Solvents	
	Caustics	
	Alcohols	
	Amines	
	Aldehydes	
	Radioactive Material	
	Brines	
	Sewage/Wastewater	
	Other (Describe)	

Facility Name	

Identify Regulatory Controls Which Will Be In Place At This Site

	Control		Control
	Abandoned Mine Reclamation		Abandoned Water Wells
	Coal Mine Reclamation		Ground Water Quality Protection
	Mined Land Reclamation		Oil and Gas
	Pesticides		RCRA
	SARA Title II		Scavenger Waste Disposal
	Septic Tank/Drain-fields		Solid Waste Management
	Superfund		Underground Injection Control
	Underground Storage Tanks		UPDES
	Water Wells		Other (list below)

List any other controls not listed above (Theses may be physical, such as impounds, or operational, such as electronic monitoring): _____

_____

_____

_____

_____

Notes: _____

_____

_____

_____

_____

Assess Controls

~~Are the Controls checked off above adequate to eliminate or minimize to the greatest possible extent, the possibility~~ that this potential contamination source would ever contaminate your drinking water source?

____**Yes** or ____**No**

If **Yes**, no more controls need to be planned unless conditions change.

If **No**, proceed to plan the controls for this inadequately controlled potential contamination source.

_____

Signature: _____ **for applicant**

Date: _____

Signature: _____**for Pleasant View City**

Date:_____

Date

Dear Property Owner:

A portion of the drinking water supply provided to Pleasant View City comes from City owned wells and Springs. Pleasant View City has been directed by the State of Utah Drinking Water Division to complete a Federally mandated program known as the Drinking Water Source Protection (DWSP) plan. This program requires Pleasant View City to complete a study of the City's water supply sources which includes a study of the geology of the land to determine which areas contribute to the recharge of the wellhead.

Pleasant View City is sending you this letter because your property is in one of the special "wellhead protection zones." Any property in the wellhead protection zone has the potential of discharging a contaminate which may be introduced to the well water supply and contaminate the drinking water source. Pleasant View City is requesting your cooperation in protecting the drinking water supply of the City. Following is a list of items that you may do to help the City in this regard.

1. Please follow manufactures' application guidelines for fertilizers, herbicides, etc. - don't over apply or over water after applying.
2. Chemicals and containers should be stored indoors on impervious surfaces.
3. Secondary containment should be provided for all containers more than 55 gallons in capacity.
4. Chemicals should be handled according to manufacturers recommendations and MSDS requirements.
5. Use state approved businesses for waste disposal.
6. Please notify Pleasant View City in the case of a chemical or fuel leak or spill
7. An existing well can be a source of contamination. Please notify the City if a well may be contaminated or if it is abandoned.
8. Used oil tanks should be labeled as per state regulation.

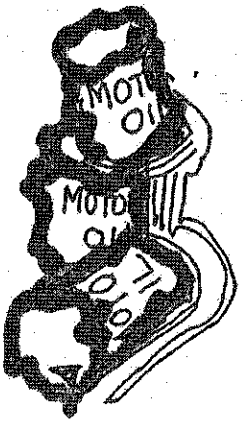
The City appreciates your cooperation in this matter. If you have any questions or concerns or would like to see a copy of the Drinking Water Source Protection Plan, you may contact the Pleasant View City Water System Superintendent, Fred C. Hellstrom, at (801) 782-8176.

Sincerely,

Pleasant View City

See attached: Partnership for the Environment Fact Sheets

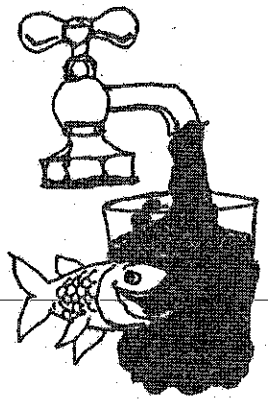
USED OIL IS A VALUABLE RESOURCE



Used oil can be re-refined as a lubricating oil, used as a clean fuel and reprocessed to create many petroleum-based products. Recycling it saves this non-renewable resource for future use. Recycled, it's great.

IMPROPERLY DISPOSED OF, IT'S HARMFUL.

America's worst oil spill isn't noted much in the news because it is spread all over the U.S. The EPA estimates that 200 million gallons of used oil are dumped on the ground, tossed in the trash (ending up in land fills), and poured down storm sewers and drains every year.



Just one gallon of used oil, the amount from a single small auto engine, has the potential to contaminate up to one million gallons of fresh water — a year's supply for 50 people.

A single gallon will create an eight-acre oil slick. It will poison fish and reduce the oxygen produced by aquatic plants. It's bad.

IMPROPER DISPOSAL IS ILLEGAL

The 1993 Utah Legislature enacted the "Used Oil Management Act," mandating new standards for the collection, processing, and recycling or reusing of used oil. The act corresponds with the standards promulgated by the U.S. Environmental Protection Agency. The Utah Division of Solid and Hazardous Waste developed, and is responsible for implementing, the standards for Management of Used Oil, R315-15, copies may be obtained from the Division.

It is illegal for anyone to place, discard or otherwise dispose of used oil in a landfill, in sewers, drainage systems, septic tanks, surface or ground waters, or on the ground.

A single violation of this new used oil disposal law can result in a fine of up to $10,000.

WHO IS RESPONSIBLE FOR PROPER DISPOSAL?

Every Utahn is responsible to help keep our state free of improperly trashed oil. It is estimated that sixty percent of us change our own motor oil. If you don't, there is almost surely someone in your family or circle of friends who does. Please encourage everyone who handles used oil to locate the used oil collection center nearest you and use it.

If there isn't a used oil collection center near you, encourage a local service station, garage, auto parts store or other merchant to find out about becoming a collection center. Details can be obtained by calling 1-800-458-0145.

If you would like more information about used oil collection for your school, organization, club or group, call or write the Division of Solid and Hazardous Waste at 538-6170.

Sample flyer, produced by the Division of Solid and Hazardous Waste

Where To Learn More

Learn more about how agriculture practices can affect the environment and play a role in conservation at: **nrcs.usda.gov*** and **extension.org***

Find out about EPA's Agricultural Assistance Center: **epa.gov/agriculture**

Learn more about protecting drinking water sources at: **epa.gov/safewater/sourcewater** and **protectdrinkingwater.org***

Learn more about effective weed and pest management at: **ipminstitute.org***

Get quick facts about water, play interactive games, and test your water knowledge with the US Geological Survey's site: **ga.water.usgs.gov/edu***

Learn about conservation tillage, buffer strips, nutrient management plans and more at **conservationinformation.org***

Find teaching resources at **epa.gov/teachers**

Try this interactive learning center, covering all aspects of agriculture education: **agedlearning.org***

Take a peek at what one agricultural state has to say to farmers about keeping their water clean: **egov.oregon.gov/OPSW/partners/tenthings/farmers.pdf***

A basic how-to guide and action plan for protecting your source water, addressing what you can do: **cleanwaterfund.org/sourcewater/pdf/sourceguide.pdf***

Learn about how groundwater is contaminated and what you and your community can do to help protect this vital resource: **groundwater.org/gi/docs/GWBASICS2.pdf***

Find out more about septic system care at: **http://www.epa.gov/owm/septic/pubs/homeowner_guide_long.pdf**

* Not EPA websites

The Next Generation Agriculture Project

Several organizations are jointly developing an educational program aimed at over one million high school Ag Science students. The Next Generation Agriculture Project is an instructional initiative that will educate future agricultural leaders about the importance of protecting drinking water sources. These seven advisory members have banded together:

- United States Department of Education
- United States Environmental Protection Agency (Office of Ground Water and Drinking Water and Office of Wetlands, Oceans, and Watersheds)
- The Groundwater Foundation
- National Association of Conservation Districts
- National FFA Organization
- United States Department of Agriculture
- United States Geological Survey

Protect drinking water from FIELD TO FAUCET U.S. Environmental Protection Agency

Office of Water (4606M) EPA 816-F-08-129 (October 2008)
www.epa.gov/safewater

EPA 816-F-08-129

Your Water. Your Decision.

A brief guide for tomorrow's agricultural leaders...

EPA United States Environmental Protection Agency

FIELD TO FAUCET

October 2008

From field to faucet:
Your water.
Your decision.

In agriculture, how you work affects what you drink. From fertilizer applications to livestock management, decisions in the field can affect the water in your faucet. That's why every generation in agriculture tries to improve on the last — better practices for better water quality and irrigation for years to come. Learn today's best practices now, and you and your neighbors can drink in the results tomorrow.

Why learn more?

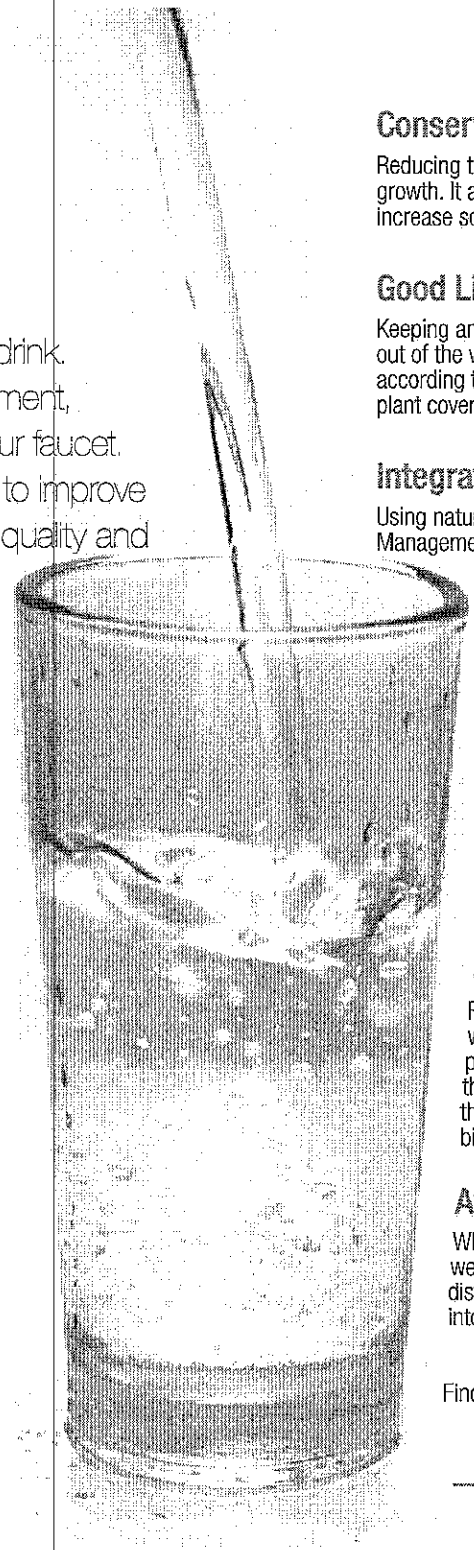
- **You can save money.** Practices that protect the environment not only make farms more sustainable (such as protecting soil quality), they also tend to be more cost effective.
- **You can make a difference.** You can protect your community's drinking water by reducing agricultural runoff, a leading source of sediment and nutrient pollution.
- **You can get help.** Loans and grants may be available to help. (Find a USDA service center at nrcs.usda.gov and see grants.gov for some possibilities).

Precise Fertilizer Use

More is not necessarily better when it comes to fertilizer. To reduce the spreading of excess nutrients that damage streams, rivers, lakes and even oceans, use a soil test to determine how much fertilizer is needed and time your fertilizer applications to avoid spreading just before a rain or snow.

Conservation Buffers

Planting trees, shrubs and grass around fields, especially those that border water bodies, helps filter pollutants before they reach sources of drinking water. Also, two-stage ditches with mini-flood plains can reduce water pollution from tile drains.



Conservation Tillage

Reducing tillage preserves the land's natural ability to filter pollutants and allows for easier plant growth. It also reduces erosion and soil compaction (plow pan), and builds soil organic matter to increase soil structure and the soil's moisture-holding capacity.

Good Livestock Management

Keeping animals and their waste out of streams, rivers, and lakes keeps the associated pollutants out of the water supply. Consider fencing off or bridging streams, applying and storing manure according to a comprehensive nutrient management plan, and managing grazing to maintain plant cover.

Integrated Pest Management

Using natural systems and careful planning for pest control — what's known as Integrated Pest Management — limits pesticide use to protect the environment and improve financial returns. Consider a four-tier approach: Set a reasonable threshold for action that may allow for some pests; carefully monitor and identify pests so you can react appropriately; prevent potential problems by managing what, when and where crops are grown; and evaluate the return on your investment in pest control, both in terms of costs and associated risks.

Intelligent Irrigation

Think and plan before adding water. To save water and develop the most efficient and effective irrigation strategy, determine when and how much to irrigate by measuring soil moisture, calculating crop water use, and making decisions based on the weather forecast. Also, consider investing in more efficient technology, such as drip irrigation.

Smart Septic Tanks

Regularly pumping and inspecting septic tanks can prevent surface and ground water contamination. Depending on your type of septic system, experts recommend professional inspections every one to three years, and having your tank pumped every three to five years. Hazardous waste is another concern. Even small amounts of paints, thinners, oil, pesticides, and other chemicals can destroy helpful bacteria and the biological digestion in a septic system. These chemicals also pollute the ground water.

Attention to Ground Water

Where you mix, store and apply chemicals, such as pesticides, can pose a risk to your well and the groundwater in general. Monitor underground storage tanks and keep a distance between chemicals or waste and your well. Prevent contaminants from seeping into valuable underground water sources.

Find links to more information at: www.**FieldtoFaucet**.org

PESTICIDES AND FERTILIZERS

Drinking Water Source Protection

Public Education Series

Lawn and garden maintenance includes applying fertilizer and pesticides. Improper storage and application may allow these chemicals to percolate through the soil and contaminate ground water. If your yard is located in a Drinking Water Source Protection area, it is important to know how to care for your lawn and garden and still protect your community drinking water supply. Proper application of fertilizer and pesticides, safe storage practices, and correct watering should be included in your protection strategy.

How Safe is Your Drinking Water?

Drinking water comes from ground water sources, such as wells and springs, or surface sources, such as rivers and lakes. Drinking water in Utah is safe, but it can become polluted if we are not careful. Many of the things we do at home can pollute our water and the environment. Poorly maintained or designed septic tank/drain-field systems can pollute surface and ground water. Pesticides, fertilizer, fuels, and cleaning products can contaminate our water when they are not stored and handled properly.

Everyone is responsible for protecting drinking water. It is nearly impossible to get pollutants out of water once they get there. Expensive treatments or new wells would be required to make drinking water safe again. Clearly, it is much more effective to keep pollutants out of water than to try to clean it up.

Storing and Handling Fertilizer

Fertilizer should be stored in locked, dry cabinets. Keep fertilizer and pesticides on separate shelves. Load your fertilizer spreader on the driveway or other hard surface so you can easily sweep up any spills. Any fertilizer that spills should be swept up and applied to your lawn or garden at the right time and amount. If you are using liquid fertilizer on your turf, add fertilizer to the spray tank while on the lawn. This way, if you spill the fertilizer, it will be used by the plants and not run off into surface waters. Fertilizer must not be stored with combustibles, such as gasoline or kerosine, because of explosion hazards.

Fertilizing Lawns and Gardens

The chemical in fertilizer that can most easily pollute ground water is a form of nitrogen called nitrate. Nitrate moves readily in soil and can continue to move to the ground water strata. Drinking water that contains 10 milligrams of nitrate-nitrogen per liter of water exceeds the drinking water standard and should not be used, especially for infant formula.

The best way to prevent the movement of nitrate into the ground water is to apply no more nitrogen than the grass, garden plants, shrubs, or trees can use during the time that the plants are growing. Sweep up any fertilizer that ends up on your driveway, sidewalks, or in the gutter. Reapply this fertilizer to your planted areas. This will allow the fertilizer to grow plants instead of washing off into nearby streams and lakes.

Application Schedule and Rates

Utah State University's Extension Service recommends the following for Utah lawns: "It is important to fertilize on a regular basis every four to six weeks to maintain an attractive lawn. Begin when lawns start to green in the spring, mid to late April. Earlier applications may cause a lawn to become greener faster, but may also increase spring disease problems. Summer applications of nitrogen fertilizer will not burn lawns if you apply them to dry grass and water immediately. Fall applications are important for good winter cold tolerance, extended fall color, and fast spring green-up. A complete fertilizer containing nitrogen, phosphorus and potassium should be applied in the fall every three to four years. This will prepare the lawn for winter conditions and allow the phosphorus to penetrate into the root zone by the next growing season.

For a well-kept lawn in Utah, apply 1 pound of available nitrogen per 1,000 square feet each four to six weeks throughout the growing season. The following chart indicates how much of various fertilizer will supply one pound of nitrogen."

%N on Label	Pounds of Fertilizer Per 1000 Square Feet
12-15	7-8
18-21	5-5 ½
24-28	3 ½-4
30-34	3-3½
45-46	2-2 ¼

Storing Pesticides

The fewer pesticides you buy, the fewer you will have to store. Therefore, you should only purchase the amount and kind of pesticide that you need. Pesticides should always be stored in sound, properly labeled, original containers. Sound containers are your first defense against a spill or leak.

Like fertilizer, pesticides should be stored in locked, dry cabinets. Fertilizer and pesticides should be kept on separate shelves. Be sure to store dry products above liquids to prevent wetting from spills. Dry formulated pesticide spills should be swept up and applied to your lawn or garden at the appropriate rates. Liquid pesticide spills should be soaked up using absorbent materials (soil, sawdust, cat litter). Place the contaminated absorbent in a sealed container and take it to a household hazardous waste collection site.

Pesticide storage areas must be kept free from combustible materials, such as petroleum products. Burning pesticides or even empty pesticide containers can create extremely toxic vapors. Pesticides should be stored in their original containers. Ensure that there are no holes, tears, or weak seams in the containers and the label is readable.

Handling Spills and Mixing Pesticides

Spilled pesticides can move through the soil into the ground water and pollute drinking water. If possible, mix pesticides on an impermeable surface, such as concrete, so any spills will be contained. It is important to mix only the amount that you will use. First, measure the total square feet you intend to treat in your lawn or garden. Then read the label on the pesticide container and follow the instructions. These are often given in terms of amount of pesticide to use per thousand square feet. By properly measuring and calculating, you

should have little or no spray mix left in your spray tank when you are finished and you will be applying it at the proper recommended rate.

Applying Pesticides

Homeowners frequently use pesticides to kill or control weeds (herbicides), insects (insecticides) and fungi (fungicides) that attack their lawn or garden plants. Some of these pesticides can move through the soil and into the ground water.

Guidelines for the safe use of pesticides are provided below:

- Be willing to accept a low level of weed, insect, and plant disease infestation.
- Use pesticides only when absolutely necessary.
- Identify pests correctly. Use the proper pesticides.
- Read and follow the directions printed on the container labels. Remember, *the label is the law.*
- Calibrate your spreader and sprayer to keep from applying too much pesticide.
- Do not spray or apply pesticides near irrigation wells. Wells are conduits to the ground water.
- Do not spray or apply pesticides near your walkway and driveway.

Disposing of Pesticides

Improper disposal of pesticide containers can lead to ground water contamination because the chemical residue can leak from the container onto the ground. If you are using liquid pesticides, rinse the container three times. Be sure to pour the rinsings into your sprayer and not down a drain. Containers which have been emptied and rinsed can be discarded in the trash.

If you have properly measured the pesticide, you should have little or no spray left in your tank. The little that is left can be safely sprayed over the area you have treated. If you have unused pesticides in their original containers, they can be recycled at household hazardous waste collection sites.

Watering Plants

Over-watering your plants can cause excess water to move through the soil. This water can carry pesticides or nitrates that can pollute your ground water. The best way to avoid over-watering is simply to measure how much you are adding.

Turf studies have shown that most lawns only need to be watered one every three or four days to stay healthy and green. Watering every day creates shallow roots. Watering infrequently develops deep roots and healthier turf. Grass roots grow deeper into the soil and become stronger with less watering. If grass does not spring back after being stepped on it's time to water. Water only when needed.

Use the watering schedule as a guide. Your lawn may need more water when it's extra hot or less when it's cool. Water less when it rains. Avoid watering on windy days or midday when the evaporation level is the highest. Try to water during the early morning hours. Proper lawn watering can save a lot of water - and that save you money. For more information on water conservation call (801) 538-7299.

Determine Your Lawn Watering Needs

1. Set three or more flat bottom cans or coffee mugs at various places on your lawn at least four feet from the sprinkler head.

2. Turn on your sprinkler(s) for 15 minuets.

3. Measure the depth of water in each can with a ruler and determine the average water depth in the cans.

4. Match your sprinkler output with the table below. Then water the number of minutes indicated.

Water Depth in Cans		1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
Season		Watering Time in Minutes								
	Spring (water every 4 days)	52	34	26	20	17	13	10	9	6
	Summer (water every 3 days)	104	69	52	41	35	26	21	17	13
	Fall (water every 3 days)	69	51	39	31	26	19	15	13	10

Water through October 15 and again November 1st for Winter.
Note: If water begins to run off; stop and let it soak in a few minutes, then continue for the recommended time.
St George / Dixie Area - Add 10 minutes to the watering times above.

- Copied from the Utah Division of Water Resources' Lawn Watering Guide

Types of Plants

One of the best ways to protect your ground water is to use plants that are drought-tolerant and that are adapted to your area. Drought-tolerant or low-water-use plants can continue to survive once they are established, even during times of little rainfall. Because you do not have to water these plants, there is less chance that nitrate and pesticides will be carried with the water through the soil and into the ground water.

If low-water-use plants are not practical, then try to use medium water use plants. Water these plants only when they begin to show drought stress. Some plants will wilt when they are drought-stressed, while other plants will show marginal leaf burn.

For More Information

For more information about the use of pesticides and fertilizer for lawn and garden care and protecting ground water, contact your local health department or county Extension agent.

- Adapted from North Carolina materials produced for their Home*A*Syst Program.
- Utah Divison of Drinking Water, Source Protection Program

HOUSEHOLD HAZARDOUS WASTE

Drinking Water Source Protection
Public Education Series

Waste is often disposed in our yards and neighborhoods. Some hazardous products are disposed by throwing them in the trash, pouring them in a ditch, dumping them on a vacant lot, or burning them in the "back 40." Waste disposed in an open dump, or even underground, can percolate through the soil and contaminate groundwater.

To minimize the pollution potential from household waste, it is important to minimize the amount of waste produced, especially hazardous waste. Examine any activities that involve the use of hazardous materials and make sure that you really need all the products you are buying. Carefully consider how to use the products safely and recycle or reuse them when possible. Dispose of used or remaining products in a way that will not pose a risk to surface water or ground water. A few simple management principles apply in every situation:

- Follow the label.
- Contain any unusable waste, spills, and drips for appropriate disposal.
- Take uncontaminated recyclables to a recycling facility if one is available.
- Never throw away or bury wastes on the ground or in abandoned wells.
- Do not pour waste down the drain.

How Safe Is Your Drinking Water?

Drinking water comes from ground water sources, such as wells and springs, or surface sources, such as rivers and lakes. Drinking water in Utah is safe, but it can become polluted if we are not careful. Many of the things we do at home can pollute our water and the environment. Poorly maintained or designed septic tank/drain-field systems can pollute surface and ground water. Pesticides, fertilizers, fuels, and cleaning products can contaminate our water when they are not stored and handled properly.

Everyone is responsible for protecting drinking water. It is nearly impossible to get pollutants out of water once they get there. Expensive treatments or new wells would be required to make drinking water safe again. Clearly, it is much more effective to keep pollutants out of water than to try to clean it up.

What Is Hazardous Waste?

Many of the products we use for housework, gardening, home improvement, and equipment maintenance contains hazardous materials that endanger our health and the environment. These materials can contaminate our drinking water if they are not stored carefully and disposed properly. In addition to polluting our water, careless use and disposal of hazardous household products can cause injuries, poisoning, and air pollution.

Hazardous materials have the following features:

- Ignitable - capable of burning or causing a fire
- Corrosive - capable of eating away materials and destroying living tissue when contact occurs
- Explosive - can cause an explosion or release poisonous fumes when exposed to air, water, or other chemicals

- Toxic - poisonous, either immediately (acutely toxic) or over a long period of time (chronically toxic)
- Radioactive - can damage and destroy cells

How Do You Know If a Product Is Hazardous?

Read the label. If a product contains a hazardous substance, the front label must include a warning and a description of the hazard. The hazard may be a health hazard or it may be an environmental hazard. The label will also include instructions for safe handling and use, the common or chemical name, and first aid instructions.

Types of Household Hazardous Waste

Most hazardous household products can be grouped into four major categories:

- Automotive products that are hazardous include motor oil, brake and transmission fluid, antifreeze, car batteries, gasoline, kerosene, diesel fuel, and car wax with solvent.
- Household cleaners include drain cleaners, oven cleaners, toilet cleaners, spot removers, silver polishes, furniture polishes, liquid cleanser, powdered and window cleaners, bleach, and dyes.
- Paint and solvents that are hazardous include latex, oil-based, auto and model paint, paint stripper, primer, rust remover, turpentine, varnish, wood preservative, mineral spirits, and glue.
- Pesticides, these include: herbicides, insecticides, and fungicides.

General Rules for Managing Hazardous Products

Rules for Buying Hazardous Products

- Read labels. Make sure the product will do what you want and that you feel safe using it.
- Select the least hazardous product that will do the job.
- Buy only what you need.
- Use products with pumps, not aerosols.
- Select water-based products rather than solvent-based products.
- Use products in containers made from recycled materials.

Rules for Using Hazardous Products

- Read and follow the directions.
- Wear protective clothing, if necessary.
- Make sure your work area is well ventilated.
- Seal products tightly.
- Do not smoke, eat, or drink when using these products.
- Use products carefully.

Rules for Storing Hazardous Products

- Store products according to label directions.
- Protect the original label.

- Store hazardous household chemicals in the original container.
- Keep containers dry to prevent corrosion.
- Store similar products together to reduce any danger from reactions if containers should leak or contents should spill.
- Store products in a well-ventilated area.
- Store products away from children and pets. Generally high, locked shelves work best.
- Store products away from any flammable materials or sources.

Rules for Disposing of Hazardous Waste Products

- Do not mix products. You may start a dangerous chemical reaction.
- Do not flush waste down your sink or toilet.
- Never burn, dump, or bury hazardous waste.
- Do not pour hazardous household waste into ditches, storm drains, or gutters.
- DO RECYCLE products and containers whenever possible.

Automotive Products

Included in this category of hazardous substances are batteries, motor oil, grease and other lubricants, antifreeze, and gasoline and related petroleum products.

Disposing of Oil and Lubricants

Store waste oil in closed, labeled containers (plastic milk jugs work well) until you can take the oil to be recycled. Service stations often accept limited amounts of used oil or can inform you of places that do accept it. Disposing of used oil around your home, such as on driveways or around buildings and fences, can contaminate your community drinking water supply. Used motor oil contains organic chemicals and metals. A small amount of oil can contaminate large quantities of ground water. It is illegal to use oil for road oiling and dust control.

Recycling Vehicle Batteries

Vehicle batteries contain lead and sulfuric acid. The lead can contaminate water and the acid can burn skin. A battery contains approximately 18 pounds of toxic metals and a gallon of corrosive acids. Batteries should be stored in a safe dry place out of direct sunlight and out of reach of children and pets.

Vehicle batteries cannot be disposed in landfills. The only satisfactory way to dispose of old batteries is to recycle them. All stores that sell batteries will take back used batteries. Some service stations and scrap metal dealers will also take used batteries. Many communities have recycling centers that handle old automotive batteries.

Disposing of Antifreeze

Do not pour antifreeze into a septic system. The antifreeze will kill the beneficial organisms in your septic system that make it work. Used or excess antifreeze should be recycled. Antifreeze cannot be disposed in a sanitary landfill; it should be used up or recycled.

Pouring antifreeze on the ground or into a ditch can lead to ingestion by pets, seepage into the ground water supply, or contamination of surface water sources. Antifreeze contains chemicals which are poisonous to

animals and humans. Pets will lap up an antifreeze puddle because it tastes sweet. This is often fatal. Therefore, it is very important to store your antifreeze in a safe place, secured from children and pets.

Storing and Using Gasoline and Other Fuels

Petroleum products are among the most hazardous substances found around the home. Use up old fuels by diluting one part old fuel with five parts new fuel to protect engines. If disposal of old fuel is necessary, small amounts may be taken to service stations or community hazardous waste collection sites. Contact your local health department for the proper procedures for disposing of large quantities of fuel.

Paints and Solvents

The best method for managing paint, solvents, and cleaning products is to use them up. To avoid wasting any of these products, buy only the quantity that you need. Store them in well-ventilated areas, away from children and pets.

Storing and Disposing of Paints and Stains

One of the best ways to use up old paint is to give it to someone who will use it. Store paint in a dry place where it won't freeze. Paint is usually usable if it mixes well when stirred and hasn't been frozen and thawed repeatedly.

Oil-based paints have a solvent base which can be harmful to septic systems if the paint is poured down the drain. Any paint that needs to be disposed should first be dried out in a well-ventilated area away from children, pets, flames, or anything that might spark. For small quantities of paint, remove the lid and let it dry in the can. After the paint has dried, seal it in a plastic bag and take it to the landfill. A better choice is to recycle paint at a household hazardous waste collection site.

Storing and Disposing of Solvents

Disposing of solvents by dumping them on the ground or in a septic system allows the solvents to percolate into the soil and possibly into the ground water. Because of this, solvents should never be poured on the ground or into a drain that discharges to a septic system. Always use solvents in a well-ventilated area. Store them in their original containers and out of the reach of children.

Some solvents, such as paint thinner, can be cleaned and reused. Clean dirty solvents by placing them in a closed transparent container and storing them until the paint or other material settles to the bottom. After the sludge has settled out, pour the clean, reusable solvent off the top. Let the sludge dry and take it to a permitted landfill or household hazardous waste collection site.

Household Pesticides (See the sheet titled *Pesticides and Fertilizers*, for information on storage, handling, and disposal of pesticides.)

For more information about hazardous waste, contact your local health department or county Extension agent.

- Adapted from North Carolina materials produced for their Home*A*Syst Program.
- Utah Division of Drinking Water, Source Protection Program

Partnership for the Environment

Utah Department of Environmental Quality

Pollution Prevention for Vehicle Maintenance & Repair Industry

Background

Vehicle repair shops generate regulated waste, either from the services they provide, such as fluid replacement, or from operations they perform, such as parts washing. Some common waste types include:

- Degreasers
- Engine fluids (oil, antifreeze)
- Floor dust
- Floor wash water
- Lead acid batteries
- Metal parts/scrap
- Oily waste sump sludge
- Spent solvents
- Paints and thinners
- Paper products (masking paper, cardboard, office paper.)
- Rags and absorbents
- Refrigerants
- Tires

Here are some options vehicle maintenance and repair companies can use to reduce wastes.

Train Employees to use Good Housekeeping Practices

- Implement spill prevention measures to reduce products from entering the environment.
- Perform preventative maintenance on equipment and vehicles.
- Check incoming vehicles for leaking fluids. Use drip pans to prevent spillage.
- Prevent non-hazardous material from getting contaminated by segregating waste streams.
- Monitor your inventory in storage to reduce accumulation of over-age products.
- Implement a "first-in first-out" policy.

Substitute Materials

- Look for ways to replace solvents with water based cleaners.
- Substitute detergent-based solutions for caustic solutions when cleaning.
- Substitute non-asbestos brake lining for asbestos brake lining.
- Purchase materials in non-aerosol form.
- Use biodegradable floor cleaners.
- Use non-chlorinated brake cleaners.

Modify Processes

- Prerinse parts with spent cleaning solution.
- Remove parts slowly after immersion in solvent solution to prevent spillage.
- Use a still rinse solvent sink rather than a free running rinse.
- Cover or plug solvent sinks when not in use to prevent evaporation.
- Replace solvent parts washers with a hot water washer or jet spray.
- Place cleaning equipment in a convenient location near the service bays to reduce drips and spills.
- Change spray painting process to high volume, low pressure process which will minimize paint lost due to overspray.

Recycle

- Recyclable waste streams should be segregated to prevent cross-contamination.
- Oils and antifreeze should be collected and recycled.
- Lease or purchase solvent sinks and recycle solvent on or off site.
- Send tires, batteries, and metal parts to a recycler.
- Contract a linen service which will supply clean rags and collect dirty ones for washing.
- Purchase a recycling system to recover refrigerant. Reuse containers within the facility or through a drum salvage company.
- An oil/water separator should be used before water is diverted to sewer.

For More Information, Contact:

Division of Solid & Hazardous Waste - (801) 538 - 6170
Divion of Drinking Water, Source Protection Program - (801) 536-4200
Division of Water Quality - (801) 538-6146
Small Business Assistance Program - (801) 536-4479
Sonja Wallace, Pollution Prevention Coordinator - (801) 536-4477
Environmental Hotline - 1-800-458-0145

Partnership for the Environment

Utah Department of Environmental Quality

Septic Tank/Drainfield System Fact Sheet

What Are The Potential Hazards?

Septic systems can contaminate ground water if they are misused, improperly maintained, or improperly constructed. The major contaminant discharged from septic systems is disease-causing germs. These germs (bacteria and viruses) - can cause many human diseases. Another contaminant discharged from septic systems is nitrogen in the form of nitrate. If the nitrate level of drinking water is too high, infants, up to the age of six months old, can develop a fatal disease called blue baby syndrome (methemoglobenemia). Additionally, if toxic chemicals are disposed in a septic system, they can percolate through the drainfield and into the ground water.

How Does A Septic Tank/Drainfield System Work?

The basic septic system is composed of a septic tank followed by a drainfield. Wastewater flows out of the house and into the septic tank through the building sewer pipe. Once in the septic tank, most solids in the wastewater settle to the bottom of the tank to form a sludge layer. Other solids float and form a scum layer on top of the wastewater. Some decomposition of solid material takes place here, but the primary function of a septic tank is to trap solids and prevent them from entering the drainfield.

Wastewater treatment is restricted to a rather thin zone of unsaturated soil underlying the drainfield. Many of the harmful bacteria and microbes are filtered out as the wastewater passes through this soil. Some of the smaller microbes (viruses) and nutrients such as phosphorus and some forms of nitrogen are trapped and held (adsorbed) by soil particles. Once the effluent reaches the groundwater table, little treatment occurs. Soils can differ markedly in their pollutant removal efficiency. The ability to which soil can remove pollutants in the wastewater determines how many impurities will eventually reach the groundwater beneath the drainfield.

Site Evaluation And Construction

Current rules require a comprehensive evaluation of the soil and ground water before a septic system can be permitted for construction in a given location. This evaluation must be reviewed and approved by the local health department. The rules require that the bottom of the drainfield trenches be placed at least 12 inches (preferably 24 inches) above the water table. Additionally, there must be adequate amounts of unsaturated soil beneath the trenches to allow sufficient treatment of the wastewater.

Site Considerations

- Trees and deep-rooted shrubs should be as far away from the system as possible.
- Keep the water that runs off of foundation drains, gutters, driveways, and other paved areas away from the drainfield of your septic system.

- Keep the soil over the drainfield covered with grass to prevent soil erosion.
- Don't drive vehicles over the system.
- Don't cover the tank or drainfield with concrete or asphalt and don't build over these areas.

Proper Disposal Practices

- Use only a moderate amount of cleaning products and do not pour solvents or other household hazardous waste down the drains.
- Garbage disposals should not be used because they tend to overload the system with solids. If you have one, you should severely limit its use.
- Do not pour grease or cooking oil down the sink.
- Do not put items down the drain that may clog the septic tank or other parts of the system. These items include cigarette butts, sanitary napkins, tampons, condoms, disposable diapers, paper towels, egg shells, and coffee grounds.

Water Conservation

There are limits to the amount of wastewater a septic system can treat. If you overload the system, wastewater may backup into your home or surface over your drainfield. Problems caused by using too much water can occur periodically throughout the year or be seasonal. For example, the soil beneath your drainfield is wetter in the spring than it is in the summer and its capacity to percolate wastewater is somewhat diminished. If you wash all your laundry in one day, you may have a temporary problem caused by overloading the soil's capacity to percolate wastewater for that day. To reduce the risk of using too much water, try the following:

- Use 1.6 gallons (or less) per flush toilets.
- Fix leaking toilets and faucets immediately.
- Use faucet aerators at sinks and flow reducing nozzles at showers.
- Limit the length of your shower to 10 minutes or less.
- Do not fill the bathtub with more than 6 inches of water.
- Do not wash more than one or two loads of laundry per day.
- Do not use the dishwasher until it is full.

Septic Tank Cleaning

It is recommended that the solids that collect in your septic tank be pumped out and disposed at an approved location every three to five years. If not removed, these solids will eventually be discharged from the septic tank into the drainfield and will clog the soil in the absorption trenches. If the absorption trenches are clogged, sewage will either back up into the house or surface over the drainfield. If this happens, pump the tank will not solve the problem and a new drainfield will probably need to be constructed on a different part of the lot.

For More Information, Contact:

Division of Drinking Water, Source Protection Program - (801) 536-4200
Division of Water Quality - (801) 538-6146
Sonja Wallace, Pollution Prevention Coordinator - (801) 536-4477
Environmental Hotline - 1-800-458-0145

Partnership for the Environment

Utah Department of Environmental Quality

Pesticides Fact Sheet

What Are The Potential Hazards?

Pesticides applied to plants during crop, lawn, and garden maintenance may leach into the ground water and cause contamination. Proper storage, mixing, application, spill cleanup, watering, and disposal procedures should be included in pesticide best management practices.

Storing Pesticides

The fewer pesticides you buy, the fewer you will have to store. Therefore, only purchase the amount and kind of pesticide that is needed. Pesticides should always be stored in sound, properly labeled, original containers. ***Sound containers are the first defense against spills and leaks.***

- Ensure that there are no holes, tears, or weak seams in the containers and that the label is readable.
- Pesticides should be stored in locked, dry cabinets.
- Be sure to store dry products above liquids to prevent wetting from spills.
- Storage and mixing areas should not be located near floor drains of any kind.
- Storage facilities should have secondary containment, such as a berm or dike, which will hold spills or leaks at:
    1. 10% of the total volume of the containers, or
    2. 110% of the volume of the largest container, whichever is larger.

Mixing Pesticides

- Mix pesticides on an impermeable surface, such as concrete, so any spills will be contained.
- Mix only the amount that you will use:
    1. Measure the total square feet you intend to treat.
    2. Read the label on the pesticide container and follow the instructions. (These are often given in terms of amount of pesticide to use per thousand square feet.)
    3. By properly measuring and calculating, there should be little or no pesticide left in the spray tank when the job is finished and it will be applied at the recommended rate.

Applying Pesticides

Pesticides are used to kill or control weeds (herbicides), insects (insecticides) and fungi (fungicides) that attack plants. Some of these pesticides can move through the soil and into the ground water. Guidelines for the safe use of pesticides are listed below:

- Be willing to accept a low level of weed, insect, and plant disease infestation.

- Use pesticides only when absolutely necessary.
- Identify pests correctly. Use the proper pesticides.
- Read and follow the directions printed on the container labels. Remember, *the label is the law.*
- Calibrate your spreader and sprayer to keep from applying too much pesticide.
- Do not spray or apply pesticides near irrigation wells. Wells are conduits to the ground water.
- Do not spray or apply pesticides near your walks and driveway. This prevents them from washing off into the storm drain system.

Cleaning Up Spills

- Dry formulated pesticide spills should be swept up and applied to crops, lawns, and gardens at the rate specified on the label.
- Liquid pesticide spills should be soaked up using absorbent material (such as, soil, sawdust, and cat litter). The contaminated absorbent material should then be put in a sealed container and taken to a household hazardous waste collection site.

Watering

Over-watering your plants can cause excess water to move through the soil. This water can carry pesticides that can contaminate the ground water. The best way to avoid over-watering is simply to measure how much you are adding. Contact your county Extension Service to determine the best way to calculate how much water your plants need and how to measure the amount you are applying.

Disposing of Pesticides

If the pesticide was properly measured and mixed, there should be little or no spray left in the tank. The little that may be left can be safely sprayed over the area that was treated until it is gone. Disposal of "empty" pesticide containers and unused pesticides should be handled as follows:

- If you are using liquid pesticides, rinse the container three times. Be sure to pour the rinsing into your sprayer and not down a drain or onto the ground. Containers which have been emptied and rinsed can be discarded in the trash.
- Unused pesticides in their original containers can be recycled at household hazardous waste collection sites.

For More Information, Contact:

Division of Drinking Water, Source Protection Program - (801) 536-4200
Department of Agriculture - (801) 538-7100
Environmental Hotline - 1-800-458-0145
Sonja Wallace, Pollution Prevention Coordinator - (801) 536-4477

Partnership for the Environment

Utah Department of Environmental Quality

Household Hazardous Waste Fact Sheet

What is Household Hazardous Waste?

Many hazardous products and chemicals such as cleaners, oils and pesticides are used in the home every day. When discarded, these products are called household hazardous waste (HHW). HHWs are discarded materials and products that are ignitable, corrosive, reactive, toxic or otherwise listed as hazardous by the EPA. Products used and disposed of by a typical residence may contain more than 100 hazardous substances including:

- Batteries
- Cleaners
- Cosmetics
- Fluorescent light bulbs
- Glues
- Heating oil
- Insecticides and pesticides
- Ink
- Medicines
- Motor oil and automotive supplies
- Paints, thinners, stains and varnishes
- Polishes
- Swimming pool chemicals
- Smoke detectors
- Thermometers
- Fuel

HHW is a Serious Threat

The U.S. Environmental Protection Agency estimates the average American household generates 20 pounds of HHW each year. As much as 100 pounds of HHW can accumulate in the home and remain there until the resident moves or undertakes a thorough "spring cleaning."

Since the chemicals found in HHW can cause soil and groundwater contamination, generate hazardous emissions at landfills and disrupt water treatment plants, it is important to dispose of HHW properly. Many solid waste treatment facilities are currently required to screen for HHW to avoid operating under restrictive hazardous waste laws. Furthermore, many communities may be required to establish a HHW collection program in order to qualify for permits to manage storm water.

Safe Handling Tips

The best way to handle household hazardous materials is to completely use the product before disposing of the container. If this is not possible, then the next alternative is to return unused portions to your community household hazardous waste clean-up day. Keep products in their original package with all labels intact. If the container is leaking, place it in a thick plastic bag. Pack the products in a plastic-lined cardboard box to prevent leaks and breakage.

Household hazardous waste clean-up days are for household wastes only. No industrial or commercial wastes and no containers larger than five gallons are accepted. Explosives, radioactive

material and medical wastes are also unacceptable.

HHW can be dangerous to people and pets who come in contact with them. HHW can endanger water supplies, damage sewage treatment systems, and cause other environmental damage. Only use the products as directed. **DO NOT:**

- Flush HHWs down the toilet
- Pour HHWs down the sink
- Pour HHWs down a storm drain
- Pour HHWs on the ground

Contact your local health department or the Division of Solid and Hazardous Waste to determine whether your community has a household hazardous waste collection program.

Identify HHW

Reduce the amount of potentially hazardous products in your home and eliminate what you throw away by following these easy steps:

1. Before you buy:

- Read the labels and be aware of what they mean.
- Look for these words on labels; they tell you what products may need special handling or disposal.

Caution	Flammable
Combustible	Poison
Corrosive	Toxic
Danger	Volatile
Explosive	Warning

- Select a product best suited for the job.
- Buy only what you can use entirely.

2. After you buy:

- Read label precautions and follow directions for safe use.
- Recycle/dispose of empty containers properly.
- Share what you can't use with friends or neighbors.
- Store properly.
- Use recommended amounts; more is not necessarily better.
- Use the child-resistant closures and keep them on tightly.

For More Information, Contact:

Division of Solid & Hazardous Waste - (801) 538 - 6170
Division of Drinking Water, Source Protection Program - (801) 536-4200
Environmental Hotline - 1-800-458-0145
Sonja Wallace, Pollution Prevention Coordinator - (801) 536-4477

Partnership for the Environment

Utah Department of Environmental Quality

Pollution Prevention Fact Sheet

Pollution Prevention (P2) uses source reduction techniques and practices to reduce or eliminate the amount of hazardous substances, pollutants or contaminants entering any waste stream or being released into the environment. In short, P2 means not creating waste in the first place while reducing risks to public health, welfare, and the environment.

Pollution Prevention is Good Business

While most pollution control strategies cost money, P2 has saved many businesses thousands of dollars in treatment and disposal costs. Other economic benefits include:

- Reduced operating costs.
- Savings from reduced need for pollution control equipment.
- Elimination of waste transportation, storage, disposal and liability costs.
- Reduced compliance costs from government regulations.
- Improved public image.
- Stimulating reinvestment and enhancing competitiveness.
- Reducing risk of spills, accidents and emergencies.
- Increasing environmental protection.

P2 Techniques

Generating less waste is the best way businesses can practice pollution prevention. This can be achieved through:

- Inventory management: Tracking all raw materials and improving operations.
- Substitute non-hazardous materials for hazardous materials.
- Improving material receiving, storage, and handling practices.
- Modifying and redesigning equipment to enhance recovery and recycling.
- Improved operating efficiency of equipment.
- Establishing strict preventive maintenance programs.
- Segregating wastes for recovery.
- Separating hazardous and non-hazardous wastes to prevent cross-contamination.
- Eliminating sources of leaks and spills.
- Use of water soluble cleaning agents in place of organic solvents and degreasers.

Management Support

The support of company management is essential for developing a lasting and successful P2 program. This commitment should be passed on to employees, especially those working in areas that generate hazardous waste. Management approaches may included the following:

- Make P2 a part of the company policy, a process of continuous improvement.
- Target goals for reducing the volume and toxicity of waste streams.
- Implement recommendations identified through waste assessments.
- Reward employees who identify cost-effective P2 opportunities.
- Train employees in P2 hazardous material waste handling and emergency response procedures.

Good Housekeeping

Most successful P2 waste assessments identify sources of waste and calculate the true cost of waste generation and management. A little extra attention paid to "minor" sources of waste can result in major reductions. Improved housekeeping practices, system adjustments, process and product inspections, and the use of production unit control equipment and methods are often successful P2 practices. Others include:

- Inspect and repair equipment to reduce waste caused by equipment failure, leaks and spills.
- Contain leaks and spills by using drip trays and splash guards.
- Keep containers closed except when material is added or withdrawn.
- Utilize a "first-in first-out" inventory policy to avoid losses due to expirations.

Product Substitution

Some companies are so motivated by pollution prevention practices they change the products they produce in order to employ nonhazardous production processes. For example, they may change the design, specifications or composition of an existing end product to reduce the need for toxic materials can help reduce pollution and associated costs.

Process Modification

Inefficient or outdated production processes that could be sources of hazardous waste generation can be upgraded or replaced by a more efficient process.

- Changes in the placement order of equipment.
- Equipment modification.
- Changes in operation settings and schedules.
- Process automation.

For More Information, Contact:

Division of Solid & Hazardous Waste - (801) 538-6170
Division of Drinking Water, Source Protection Program - (801) 536-4200
Sonja Wallace, Pollution Prevention Coordinator - (801) 536-4477
Small Business Assistance Program - (801) 536-4479
Environmental Hotline - 1-800-458-0145

Partnership for the Environment

Utah Department of Environmental Quality

Fertilizer Fact Sheet

What Are The Potential Hazards?

Fertilizer applied to plants during crop, lawn, and garden maintenance may leach into the ground water and cause contamination. The main constituent in fertilizer is usually nitrogen. If the nitrate level of drinking water is too high, infants, up to the age of six months, can develop a fatal disease called blue baby syndrome (methemoglobenemia). Drinking water that contains 10 milligrams of nitrate-nitrogen per liter of water exceeds the drinking water standard and should not be used, especially for infant formula. Proper storage, application, and watering procedures should be included in fertilizer best management practices to prevent contamination of ground water.

Storing Fertilizers

The less fertilizer you buy, the less you will have to store. Therefore, only purchase the amount and kind of fertilizer that you need.

- Fertilizer should be stored in locked, dry cabinets.
- Keep fertilizer and pesticides on separate shelves.
- Don't store fertilizer with combustibles, such as gasoline or kerosine, because of explosion hazards.

Application Precautions

The chemical in fertilizer that can most easily pollute ground water is a form of nitrogen called nitrate. Nitrate moves readily in soil to the ground water strata. The best way to prevent the movement of nitrate into the ground water is to apply no more nitrogen than the crops, grass, garden plants, shrubs, or trees can use during the time that the plants are growing.

- Calibrate your spreader and sprayer to keep from applying too much fertilizer.
- Load fertilizer spreaders on the driveway or other hard surfaces so any spills can easily be swept up. Fertilizer that spills should be swept up and applied to the lawn or garden at the right time and amount. This allows the fertilizer to grow plants instead of washing off into the storm drain system and ultimately contaminating nearby streams and lakes.
- If you are using liquid fertilizer on your turf, add fertilizer to the spray tank while on the lawn. This way, if you spill the fertilizer, it will be used by the plants and not run off into the storm drain system.
- Do not spray or apply fertilizer near irrigation wells. Wells are conduits to the ground water.

Application Rates For Lawns

Utah State University's Extension Service recommends the following for Utah lawns: "It is important to fertilize on a regular basis every four to six weeks to maintain an attractive lawn. Begin

when lawns start to green in the spring, mid to late April. Earlier applications may cause a lawn to become greener faster, but may also increase spring disease problems. Summer applications of nitrogen fertilizer will not burn lawns, if you apply them to dry grass and water immediately. Fall applications are important for good winter cold tolerance, extended fall color, and fast spring green-up. A complete fertilizer containing nitrogen, phosphorus and potassium should be applied in the fall every three to four years. This will prepare the lawn for winter conditions and allow the phosphorus to penetrate into the root zone by the next growing season.

For a well-kept lawn in Utah, apply 1 pound of available nitrogen per 1,000 square feet each four to six weeks throughout the growing season. The following chart indicates how much of various fertilizer will supply one pound of nitrogen."

%N on Label	Pounds of Fertilizer Per 1000 Square Feet
12-15	7-8
18-21	5-5 ½
24-28	3 ½-4
30-34	3-3½
45-46	2-2 ¼

Types of Plants

One of the best ways to protect your ground water is to use plants that are drought-tolerant and that are adapted to your area. Drought-tolerant or low-water-use plants can continue to survive once they are established, even during times of little rainfall. Because you do not have to water these plants, there is less chance that nitrate and pesticides will be carried with the water through the soil and into the ground water.

If low-water-use plants are not practical, then try to use medium water use plants. Water these plants only when they begin to show drought stress. Some plants will wilt when they are drought-stressed, while other plants will show marginal leaf burn.

Watering

Over-watering plants can cause excess water to move through the soil. This water can flush fertilizer away from the root zone of your plants and into the ground water. The best way to avoid over-watering is simply to measure how much you are adding. Contact your county Extension Service to determine the best way to calculate how much water your plants need and how to measure the amount you are applying.

For More Information, Contact:

Division of Drinking Water, Source Protection Program - (801) 536-4200
Department of Agriculture - (801) 538-7100
Environmental Hotline - 1-800-458-0145
Sonja Wallace, Pollution Prevention Coordinator - (801) 536-4477

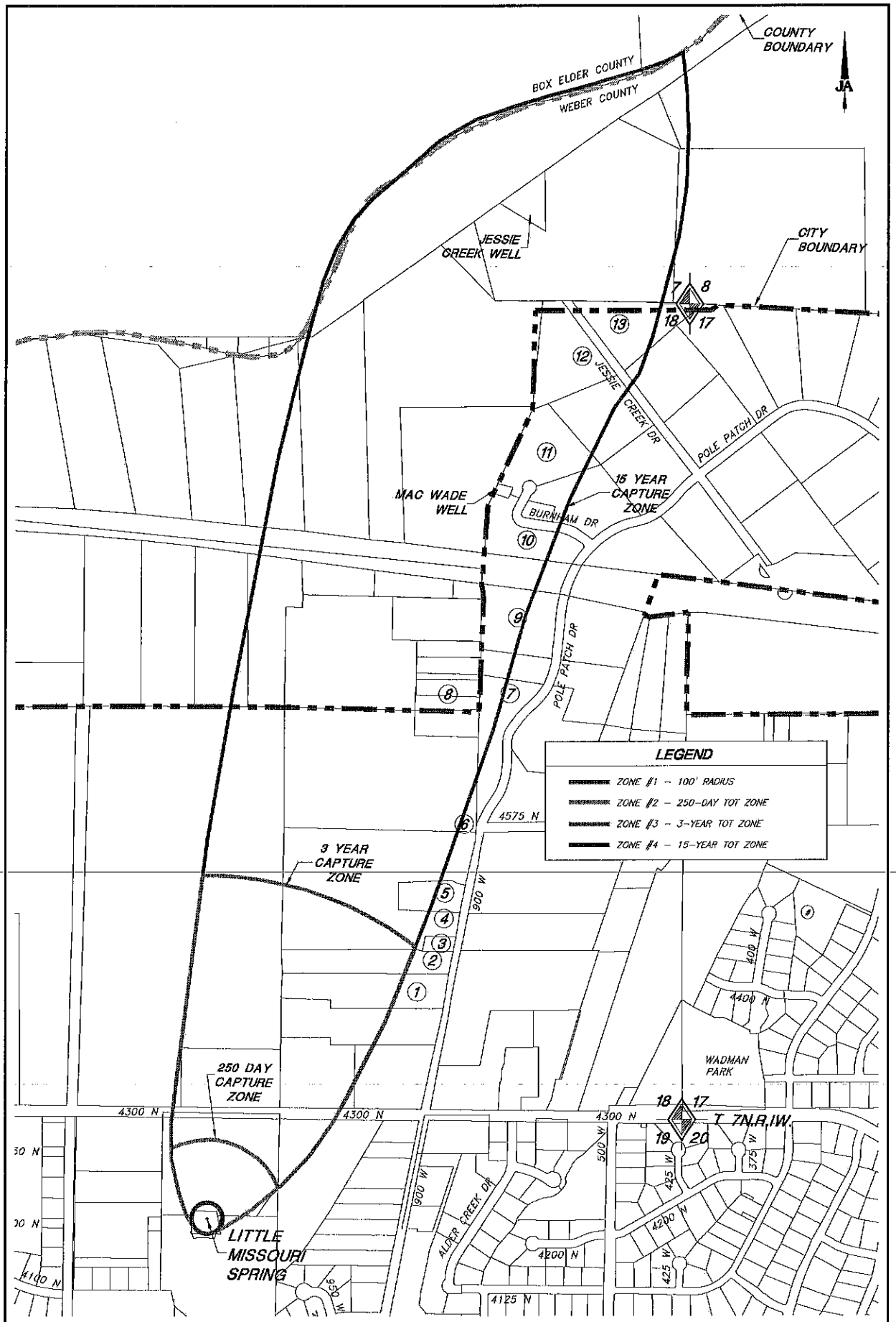
Property Ownership Lists

APPENDIX E

Table E1 - List of Property Owners			
Section	Activity	Parcel ID	Contact Person
Township 7 North Range 1 West			
Section 7			
X	Jessie Creek Well, Reservoir, and Test Well Sites	16-004-0010 16-004-0011	Pleasant View City 520 West Elberta Drive Pleasant View, UT 84414
X	Undeveloped Property	16-004-0006 *Box Elder County* 01-021-0004	Jensen Brothers BE County Properties LLC P.O. Box 73 Clearfield, UT 84089
X	Undeveloped Property	16-004-0005	Wadman Investments P.O. Box 1458 Ogden, UT 84402
Section 8			
X	Undeveloped Property	16-004-0007	Jason Kap 4592 West 4100 South West Haven, UT 84401
X	Recreational Use / Forest Service Properties	16-004-0003	United States of America 324 25th Street Ogden, UT 84401
Section 18			
X	Farmland and/or Undeveloped Property	16-012-0032	Scott & Tanna Ellis 3446 North 875 East Ogden, UT 84414
X	Farmland and/or Undeveloped Property	16-012-0081 16-012-0080	Eric & Beth Maughan Revocable Trust 1396 West Pleasant View Drive Ogden, UT 84414
X	Farmland and/or Undeveloped Property	16-012-0026 16-012-0074	4300 North Ranch Company LLC 3974 North 800 West Pleasant View, UT 84414
X	Farmland and/or Undeveloped Property	16-012-0031	William & Donna White 1981 Mapleview Drive Bountiful, UT 84010
X	Farmland and/or Undeveloped Property	16-012-0002	Diodori Steve Ligori 2563 Jackson Avenue Ogden, UT 84401
X	Power Transmission Line & Access Road	16-012-0006 16-012-0001	Utah Power and Light Company P.O. Box 899 Salt Lake City, UT 84110-0899

Section	Activity	Parcel ID	Contact Person
X	Residential & Farmland and/or Undeveloped Property	16-012-0075 16-012-0003 16-012-0024	Ms Eight LLC 895 Wall Avenue Ogden, UT 84404
X	Residential & Farmland and/or Undeveloped Property, Septic Tank	16-012-0065 16-012-0053 16-012-0051	John & Sandra Lott 4707 North 900 West Ogden, UT 84404
X	Residential & Farmland and/or Undeveloped Property	16-012-0093	Ivy Jean Kohler Trust 4501 North 900 West Pleasant View, UT 84414
X	Residential & Farmland and/or Undeveloped Property	16-012-0092	Marie L Kotter Trust 4513 North 900 West Pleasant View, UT 84414
X	Residential Property	16-012-0021	Mark Hortin 4471 North 900 West Pleasant View, UT 84414
X	Residential & Farmland and/or Undeveloped Property	16-012-0014	Little House in Pleasant View LLC 4457 North 900 West Pleasant View, UT 84414
X	Residential & Farmland and/or Undeveloped Property	16-012-0033 16-012-0094	Robert & Kathryn Frost 4453 North 900 West Pleasant View, UT 84414
X	Farmland and/or Undeveloped Property	16-012-0062	Bruce G Pitt 281 South Main Centerville, UT 84014
X	Residential & Farmland and/or Undeveloped Property	16-012-0054	David Orme 4321 North 900 West Pleasant View, UT 84414
	Pole Patch #1 & #2 Subdivision		
X	Residential Property	16-012-0038	Mark Stull 4675 Pole Patch Drive Ogden, UT 84414
X	Residential Property	16-012-0045	Robert & Margaret Steuer 4157 North 900 West Ogden, UT 84414
X	Residential Property	16-012-0046	Robert Chugg 4785 North Pole Patch Drive Pleasant View, UT 84414
X	Residential Property	16-012-0047	Larry & Shauna Kendell 755 West Burnham Drive Ogden, UT 84414

Section	Activity	Parcel ID	Contact Person
X	Mac Wade Well & Reservoir Site	16-012-0028	Pleasant View City 520 West Elberta Drive Pleasant View, UT 84414
X	Residential Property & Storage Building	16-012-0072	John & Lola Parker 4920 North Burnham Drive Ogden, UT 84414
X	Farmland and/or Undeveloped Property	16-012-0040	Stephen & Judy Farr 1003 Cassie Drive Ogden, UT 84405
X	Farmland and/or Undeveloped Property	16-012-0005	Leisel Mower 4160 North 125 West Pleasant View, UT 84414
X	Residential Property	16-012-0041	Don & Mindy Scott 5051 North Jessie Creek Dr. Pleasant View, UT 84414
X	Residential Property & Storage Building	16-012-0049	Brad & Cathy Montierth 5010 Jessie Creek Drive Ogden, UT 84414
X	Residential Property	16-012-0042	Phoebear LLC 5080 North Jessie Creek Drive Pleasant View, UT 84414
Section 19			
X	Farmland and/or Undeveloped Property	16-032-0057	Pleasant View City 520 West Elberta Drive Pleasant View, UT 84414
X	Little Missouri Spring Collection Area	16-032-0004 16-032-0061 16-032-0058 16-032-0060 16-032-0054	Pleasant View City 520 West Elberta Drive Pleasant View, UT 84414
X	Farmland and/or Undeveloped Property	16-032-0056 16-032-0059 16-032-0055 16-032-0053	Leroy M Harris 4117 North 900 West Ogden, UT 84414
X	Farmland and/or Undeveloped Property	16-015-0001	CFA Properties LC Lewis Campbell 3779 North 1100 West Ogden, UT 84414



PROJECT ENGINEER DATE	SCALE: N.T.S.	DESIGNED DRAWN CHECKED	JA JONES & ASSOCIATES	CONSULTING ENGINEERS 1716 East 6600 South South Ogden, Utah 84403 (801) 476-9767	PLEASANT VIEW CITY CORPORATION LITTLE MISSOURI SPRING DWSP PROPERTY MAP	SHEET 3 OF 3 SHEETS

Well Owners and Locations

APPENDIX F

Table F1 - List of Well Owners			
ID #	Water Right #	Location	Name, Address, Phone No. of Contact Person
	Test Well 0435002M00	North 1370 feet West 150 feet from the Southeast Corner of Section 7, T7N, R1W, SLB&M	Pleasant View City Corporation 520 West Elberta Drive Pleasant View City, Utah 84414
	Jessie Creek Well 35-4429 a29692 0435003M00	North 635 feet West 1061 feet from the Southeast Corner of Section 7, T7N, R1W, SLB&M North 630 feet West 1070 feet from the Southeast Corner of Section 7, T7N, R1W, SLB&M	Pleasant View City Corporation 520 West Elberta Drive Pleasant View City, Utah 84414
	Mac Wade Well 35-1172 a23831 a5536	South 1204 feet West 1212 feet from the Northeast Corner of Section 18, T7N, R1W, SLB&M	Pleasant View City Corporation 520 West Elberta Drive Pleasant View City, Utah 84414
	35-4871	North 431 feet East 511 feet from the South Quarter Corner of Section 18, T7N, R1W, SLB&M	Norine P. Jensen 3145 North 700 East North Ogden, UT
	35-4614	North 1500 feet West 1670 feet from the Southeast Corner of Section 18, T7N, R1W, SLB&M	Helen M. Lithgow 4513 North 900 West Ogden, UT 84404
	35-3006	South 2294 feet West 1352 feet from the Northeast Corner of Section 18, T7N, R1W, SLB&M	C.W. Rhees R.F.D. #3 Ogden, UT
	29-2266	North 1000 feet West 1350 feet from the Southeast Corner of Section 7, T7N, R1W, SLB&M	Joseph C. Jensen P.O. Box 73 Clearfield, UT 84015


Utah Division of Water Rights
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County Parcels
Public Land Survey
USGS Topographic Maps
Controls:
Legend:
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35-4570
35-5703
35-5802
a18460
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35-3779
35-4567
35-7054
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35-4754
35-7083
35-3378
35-3477
35-3429
35-5386
35-5150
35-10061
35-4604
35-3202
35-3203
35-1795
35-1928
35-1129
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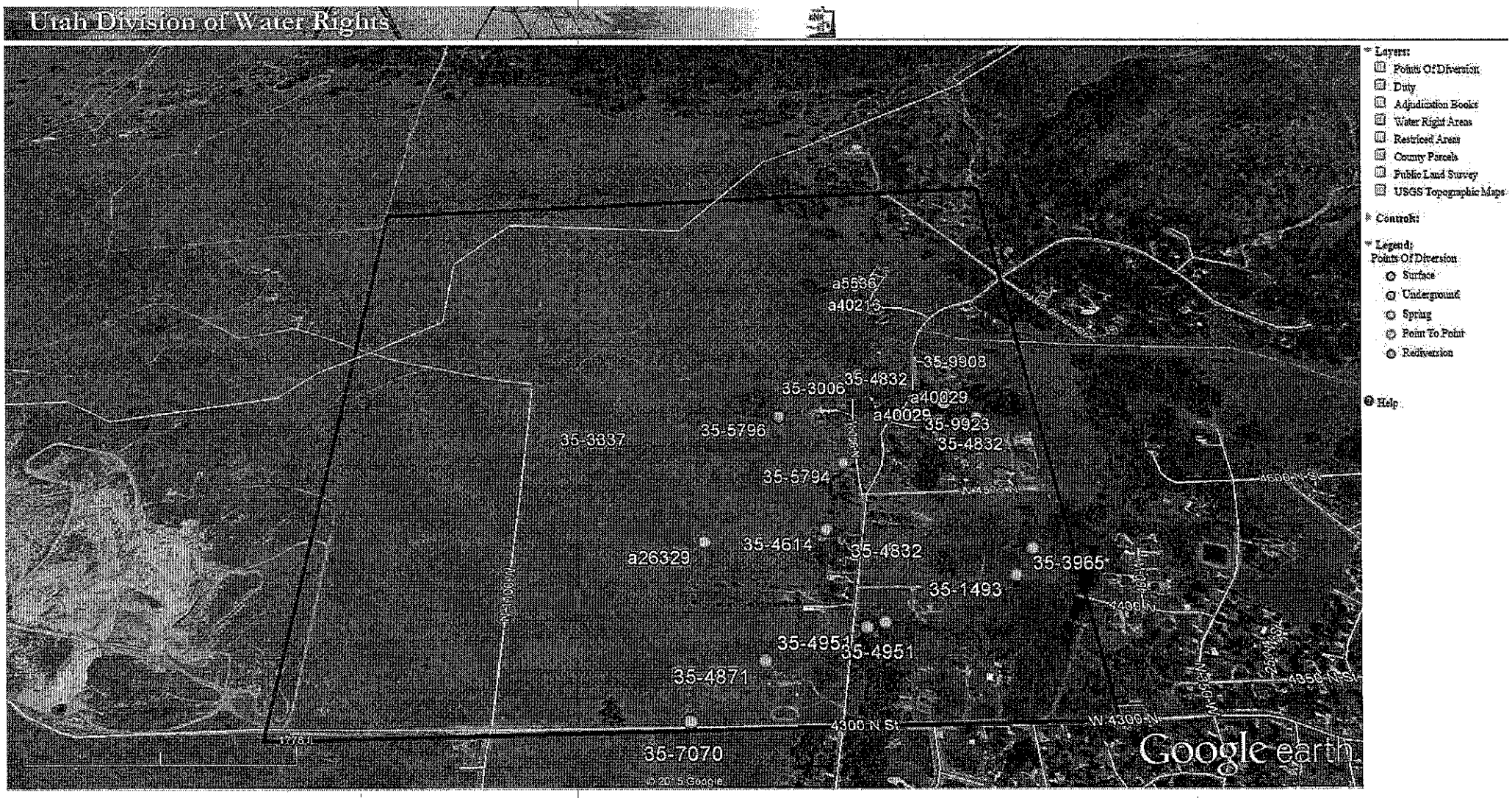
35-2907
35-7114
35-1927
35-7125
35-5687
Google earth


Utah Division of Water Rights
Layers:
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35-7070
4300 N St
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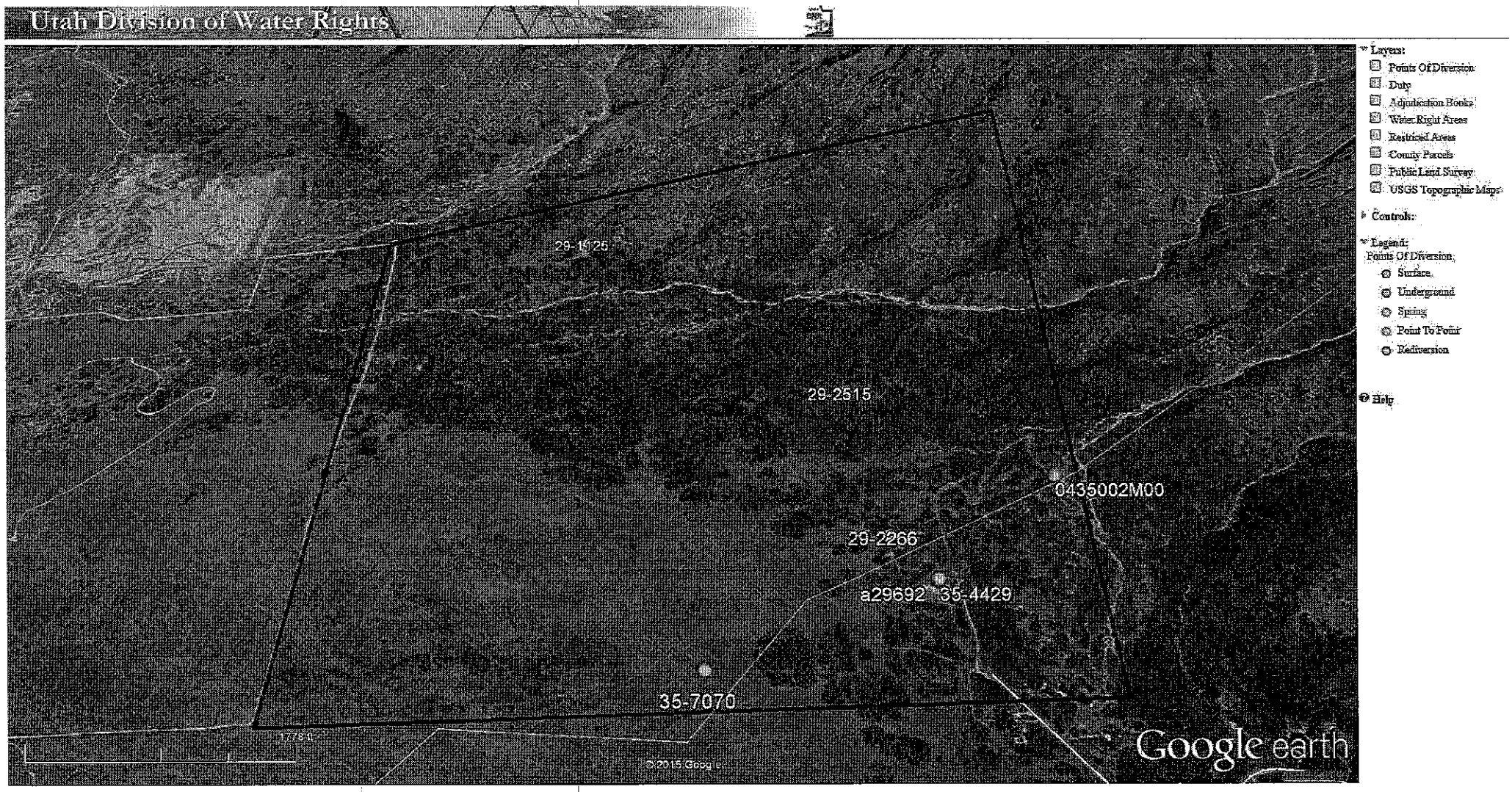
4356 N St
4400 N
Google earth
© 2015 Google


Utah Division of Water Rights
Layers:
Points Of Diversion
Dots
Adjudication Books
Water Right Areas
Restricted Areas
County Parcels
Public Land Survey
USGS Topographic Maps
Controls:
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Spring
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Help
29-1425
29-2515
0435002M00
29-2266
a29692 35-4429
35-7070
Google earth

Portion of the Contingency Plan

APPENDIX G

PLEASANT VIEW CITY

INITIAL DISASTER REPORT

Date: _____ Name of Person Making Report: _____

1. What happened (e.g., flood, explosion, tornado, fire): _____
2. When it happened: _____
3. Where it happened: _____
4. Extent of damage or loss: _____

5. Best estimate of injured, homeless, and fatalities: _____

6. Type and extent of assistance required if known: _____

7. Additional remarks: _____

PLEASANT VIEW CITY

FACILITY DAMAGE ASSESSMENT CHECKLIST

RESERVOIRS

Location: _____

Reservoir Capacity (MG): _____

Checked By: _____ Date: _____

Assessment of Damage Codes (Check appropriate Code)

No damage	**Green**
Usable with caution	**Yellow**
Damage critical, shutdown necessary	**Red**

Code red or yellow: take necessary precautionary action and notify scene commander.

ALWAYS RED TAG SHUTDOWNS

Estimated cost to restore facility $

The following should be checked:

1. Seepage, leaks, cracks in soil
2. Embankment slump, landslide
3. Inlet-outlet pipes
4. Evidence of sub base and concrete wall damage
5. Tank buckling
6. Abnormal fluctuation in storage water level
7. Telemetering and electric power sources
8. Backup batteries and generators
9. Chlorine tanks and lines
10. Structural damage
11. Other observations
12. How Much Water is within the reservoir? _____

PLEASANT VIEW CITY

FACILITY DAMAGE ASSESSMENT CHECKLIST

WELLS AND PUMP STATIONS

Location: _____

Checked By: _____ Date: _____

Assessment of Damage Codes (Check appropriate Code)

No damage	**Green**
Usable with caution	**Yellow**
Damage critical, shutdown necessary	**Red**

Code red or yellow: take necessary precautionary action and notify scene commander.

ALWAYS RED TAG SHUTDOWNS

Estimated cost to restore facility $

Before trying to restore function of plant, the following should be checked:

1. Electrical power, wires, motors, panels, breakers, transformers
2. Standby power generators
3. Water lines and controls
4. Structural damage
5. Flooding
6. Drive shafts
7. Chlorine tanks and lines
8. Other observations noted

PLEASANT VIEW CITY

FACILITY DAMAGE ASSESSMENT CHECKLIST

PIPES, UNDERGROUND

Location: _____

Checked By: _____ Date: _____

Assessment of Damage Codes (Check appropriate Code)

No damage	**Green**
Usable with caution	**Yellow**
Damage critical, shutdown necessary	**Red**

Code Red or Yellow: take necessary precautionary action and notify scene commander.

ALWAYS RED TAG SHUTDOWNS

Estimated cost to restore facility $

The following should be checked:

1. All vacuum valves
2. Pressure regulating control valves
3. Main lines
4. Seepage, leaks, cracks in soil
5. Bridges and freeway overpasses
6. Irrigation canal pipe crossings
7. Structural damage
8. Man holes and sewer and water vaults
9. Chemical spills which may contaminate water
10. Other observations noted

PLEASANT VIEW CITY

FACILITY DAMAGE ASSESSMENT CHECKLIST

BUILDINGS AND STRUCTURES

Location: _____

Checked By: _____ Date: _____

Assessment of Damage Codes (Check appropriate Code)

No damage	**Green**
Usable with caution	**Yellow**
Damage critical, shutdown necessary	**Red**

Code Red or Yellow: take necessary precautionary action and notify scene commander.
ALWAYS RED TAG SHUTDOWNS

Estimated cost to restore facility $

Before entering structures check the following:

1. Safety
2. Structural damage
3. Doorway, which may jam
4. Electrical systems and downed wires
5. Disconnect electrical, gas and water services if necessary to assure safe entry and operation
6. Foundation and subbase
7. Soil conditions, landslides, embankment slump
8. Secure broken windows and doors
9. Minimize vandalism
10. Secure alarms

Record Keeping

APPENDIX H

Memorandum

To: Pleasant View Street Department

From: Pleasant View Water Department

Date: June 2006

Re: Drinking Water Source Protection

The water department has completed a Drinking Water Source Protection Plan in an effort to protect our water supply from contamination. The plan reveals that there are city street located within the protection zones delineated by the plan. Please be aware that any accidental spills involving toxic chemicals, biological waste, or radioactive materials could threaten the water quality in our springs. Additionally, the use of herbicides and de-icing salt within source protection zones is also a threat to the water quality of these sources.

Accidental spills should be cleaned up in accordance with the information in appropriate material safety data sheets and local, state, and federal regulations. If a spill of hazardous material should occur, we request that you notify us at the phone number below so we can assess its potential impact on the quality of this well.

Thank you for helping us in protecting this valuable water resource. By working together we can ensure that we continue to provide a safe and adequate supply of water to our community for many years to come. If you would like to review our Drinking Water Source Protection Plan, it is available. Please contact me if you have questions or concerns about this memo.

PLEASANT VIEW CITY
520 West Elberta Drive
Pleasant View, Utah 84414

June 2006

Daniel R. Jones
4300 N 900 W
Pleasant View, Utah 84414

Subject: Drinking Water Source Protection

Pleasant View City has completed a Drinking Water Source Protection Plan in an effort to protect our community's public water supply from contamination. The plan reveals that your property is located within one of the protection zones delineated by the plan. If you will follow the management practices septic systems listed below, you will minimize many of the threats to the water quality of our spring:

- Do not use garbage disposals. Garbage disposals add massive amounts of solids to the septic tank and are a leading factor of clogged systems.
- Do not dispose of disposable diapers, sanitary napkins, paper towels, colored toilet paper or tissues in the septic system. These wastes do not decompose.
- Do not put fat, grease, or oil (including cooking oil) down the drain. These items can pass through the septic tank and clog the leaching field.
- Pump out septic systems every three to five years.
- Conserve water. The less water used, the longer the retention period in the tank and the more solids and bacteria can decompose. Install water saving devices.
- Do not use enzymes or acid for treating your septic tank.
- Avoid extreme peak flows by spacing out laundry loads, bathing, and dish washing.
- Do not put chemicals into the septic tank for the purpose of maintaining or declogging the leach field. There are no known chemicals, yeasts, bacteria, enzymes or other substances capable of eliminating or reducing the sludge and scum so that periodic pumping is unnecessary. Many of these cleaners contain highly concentrated organic solvents that are not biodegradable and pose a serious threat to ground water.
- Do not dispose of pesticides, disinfectants, acids, medicine, paint thinners and other household hazardous wastes in the septic system. These wastes will kill the helpful bacteria in the tank and may contaminate ground water.

Thank you for your efforts in protecting one of our community's most valuable resources. By working together we can ensure that Pleasant View City continues to have a safe and adequate supply of water for many years to come. If you would like to review our Drinking Water Source Protection Plan, it is available at our city office. Please contact me at 801-782-8176, if you have questions or concerns about this letter.

Sincerely,

Fred Hellstrom
Pleasant View City

JONES & ASSOCIATES CONSULTING ENGINEERS

October 18, 2011

Source Protection
Utah Division of Drinking Water
P.O. Box 144830
Salt Lake City, UT 84114-4830

RE: Pleasant View City Corporation - Drinking Water Source Protection Plan

To whom it may concern:

Submitted herewith is the updated Pleasant View City Drinking Water Source Protection Plan for the **Little Missouri Spring.** This is submitted as required by the Utah Administrative Code, Drinking Water Source Protection Rule R309-600-7(1).

Should you have any questions or concerns, please let us know.

Sincerely,

JONES AND ASSOCIATES
Consulting Engineers

Matthew Hartvigsen

Matt Hartvigsen, P.E.
Jones & Associates Engineers

cc: Fred C. Hellstrom
Pleasant View City
Utilities Superintendent

1716 East 5600 South • South Ogden, Utah 84403 • (801) 476-9767 • FAX (801) 476-9768

State of Utah
GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF DRINKING WATER
Kenneth H. Bousfield, P.E.
Director

October 14, 2014

Fred C. Hellstrom
Pleasant View City Corporation
520 West Elberta Drive
Pleasant View City, Utah 84414

Dear Mr. Hellstrom:

Subject: Monitoring reduction waivers for Little Missouri Spring and Alder Creek Spring
Pleasant View Culinary Water - System no. 29014, Sources nos. WS001 and WS002

We appreciate your inquiry regarding monitoring waivers for Little Missouri Spring and Alder Creek Spring. Use monitoring waivers could not be continued for Little Missouri and Alder Creek Springs because of the presence of potential contamination sources and the potential for pesticides and volatile organic contaminants (VOCs) to be used, disposed, stored, or transported within zone three of each of the springs.

A reliably and consistently waiver for VOCs is in effect for Little Missouri Spring (WS001). For Little Missouri Spring to qualify for a reliably and consistently waiver for pesticides, pesticide samples must be collected during the first and second calendar quarters of 2015, and the results submitted to the Division of Drinking Water. A non-detectable analysis for each chemical within the pesticide parameter group(s) is required.

Alder Creek Spring (WS002) currently has a reliably and consistently waiver for VOCs, so samples are now due every three years. For Alder Creek Spring to qualify for a reliably and consistently waiver for pesticides, a pesticide sample must be collected during the third quarter of 2015, and the results submitted to the Division of Drinking Water. A non-detectable analysis for each chemical within the pesticide parameter group(s) is required.

An updated monitoring schedule was enclosed with our letter of August 20, 2014. You may contact Rachael Cassady at 801-536-4467 or rcassady@utah.gov if you have questions regarding reliably and consistently monitoring waivers or your monitoring schedule.

If you have any further questions regarding the Source Protection Program, please contact Mark Jensen at 801-536-4199 or mjensen@utah.gov. To help serve you more efficiently, please refer to your water system number in all correspondence.

Sincerely,

Kenneth H. Bousfield, P.E.
Director

MEJ/RC

cc: Matt Hartvigsen, Jones & Associates Engineers, 1716 East 5600 South, South Ogden, Utah 84403
Louis Cooper, Environmental Director, Weber-Morgan Health Department, lcooper@co.weber.ut.us

Water Quality Reports

APPENDIX I

DRINKING WATER SOURCE PROTECTION PUBLIC SUMMARY
Pleasant View City

May 2002

Introduction

Pleasant View City has completed Drinking Water Source Protection Plans for its public drinking water sources as required by the 1996 Safe Drinking Water Act and by R309-600 of the State of Utah Drinking Water regulations. The Drinking Water Source Protection program includes identification of the areas from which the drinking water sources draw groundwater, an assessment of the potential contamination threats to the sources within these areas, and management programs to control both existing and future potential sources of contamination. This Public Summary has been prepared to inform Pleasant View City's public drinking water customers regarding the City's efforts to protect their water supplies from contamination.

What is the Source of Your Drinking Water?

Pleasant View City obtains culinary drinking water from two (2) existing wells and two (2) existing springs and is in the process of adding one (1) additional well. The wells have been drilled through gravel, sand, and clay layers and into fractured bedrock on the north side of Pleasant View City. Water is withdrawn from the sand and gravel layers and the fractured bedrock in the lower portions of the wells. For each of the springs, water issues from sand and gravel layers that intersect the ground surface.

Groundwater north of Pleasant View City travels through fractures in the bedrock of Mt. Ben Lomond until it reaches the Wasatch Fault at the foot of the mountain. At the Wasatch Fault, a portion of the groundwater enters the sand and gravel layers and travels south and southwest towards the Great Salt Lake through spaces between individual sand and gravel particles. The remainder of the groundwater at the Wasatch Fault continues traveling south and southwest towards the Great Salt Lake through the fractures in the bedrock underneath the sand and gravel layers.

The capture zone for each well or spring is defined as the area that contributes groundwater to the well or spring. The capture zones for Pleasant View City's drinking water sources were assessed for potential contamination threats to groundwater. Each capture zone was identified based on the potential for a drop of water seeping into the ground to eventually travel to the well or spring. These capture zones extend from each source to the north and northeast and terminate at the peak of Mt. Ben Lomond.

Assessment of Susceptibility to Contamination

Each of Pleasant View City's wells and springs receive groundwater from sand and gravel layers mixed with clay and/or from fractured bedrock. Although water does not move very well through clay, there is not a sufficient amount of clay to protect the groundwater from contamination. However, each of the wells have cement grout seals provided to at least 60 feet in depth which helps to protect the wells against contamination. No construction information is available for the City's springs.

This assessment evaluates contaminants that have the potential to enter the groundwater contributing to the City's wells and springs. The contaminants addressed in this assessment include those that Pleasant View City has determined may present a concern to health if they were to enter the groundwater supply. Descriptions of the significant potential sources of contamination located within the area contributing groundwater to the wells and springs are included below. Each significant potential source of contamination has been analyzed and assigned a qualitative susceptibility rating according to its potential to impact the water supply. This rating includes such factors as the likelihood of release, likelihood of reaching the drinking water source, quantity at the potential contamination source, and the toxicity of the contaminant. These factors are weighted 30%, 15%, 20%, and 35%, respectively with a total possible risk score of 100. Potential contamination sources are summarized in the table below.

The susceptibility of the City's wells and springs to contamination from private residences, septic systems, and transportation of hazardous materials is small. This susceptibility assessment was chosen due to the small number of residences and septic systems and the limited quantity of hazardous materials transported in the identified areas.

Potential Sources of Contamination	Description of Contaminants	Potential Risk to Groundwater Score	Hazard Control Assessment
Private Homes on Septic Systems	Household septic systems that are failing contain bacteria and viral pathogens that are discharged directly into the ground and may enter groundwater flow system.	45 to 46	Because no controls exist to adequately prevent contamination from septic systems, these private homes with septic systems are considered Not Adequately Controlled.
Residential and Commercial Areas	Hazardous materials used and stored in and around private homes could enter groundwater if spilled. Rainstorm runoff from residential and commercial streets and parking areas could enter groundwater.	33 to 42	Hazardous materials at private residences are typically used and stored in very small quantities. Because street and parking runoff can contain significant contamination, these areas are considered Not Adequately Controlled.
Transportation of Hazardous Materials	Accidents involving vehicles transporting hazardous materials could lead to spills of these materials which could lead to groundwater contamination.	41	Because no controls exist to prevent an accidental spill of hazardous materials, they are considered Not Adequately Controlled.

Management Strategies to Control Sources of Potential Contamination

Pleasant View City has adopted a public education program that informs sources of potential contamination how to reduce the risk of contamination of groundwater. Pleasant View City will annually send an information packet to all sources of contamination that are Not Adequately Controlled that will include the following requests and information:

- Request that owners of septic systems connect to the sanitary sewer system and to not use septic cleaners.
- Request that hazardous waste disposal be done through State of Utah approved businesses only.
- Request that Pleasant View City be notified in the event of a leak or spill.
- Request that all chemicals be used in accordance with the manufacturer's directions and dosages.
- Request that Best Management Practices be implemented that minimize the likelihood of a release of contamination.

In addition to these items, Pleasant View City will identify any new sources of potential contamination and include them in the Drinking Water Source Protection Plan. The City has also adopted a drinking water source protection ordinance within the City boundaries that requires future businesses and other entities to take measures that prevent groundwater contamination from their property.

Annual Drinking Water Quality Report - 2014
Pleasant View

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are two springs and three wells.

The Drinking Water Source Protection Plan for Pleasant View is available for your review. It contains information about source protection zones, potential contamination sources and management strategies to protect our drinking water. Potential contamination sources common in our protection areas are roads and residential areas. Our sources have a low susceptibility to potential contamination. We have also developed management strategies to further protect our sources from contamination. Please contact us if you have questions or concerns about our source protection plan.

There are many connections to our water distribution system. When connections are properly installed and maintained, the concerns are very minimal. However, unapproved and improper piping changes or connections can adversely affect not only the availability, but also the quality of the water. A cross connection may let polluted water or even chemicals mingle into the water supply system when not properly protected. This not only compromises the water quality but can also affect your health. So, what can you do? Do not make or allow improper connections at your homes. Even that unprotected garden hose lying in the puddle next to the driveway is a cross connection. The unprotected lawn sprinkler system after you have fertilized or sprayed is also a cross connection. When the cross connection is allowed to exist at your home, it will affect you and your family first. If you'd like to learn more about helping to protect the quality of our water, call us for further information about ways you can help.

I'm pleased to report that our drinking water meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact Tyson Jackson at 801-782-8176. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second and fourth Tuesday of the month.

Pleasant View routinely monitors for constituents in our drinking water in accordance with the Federal and Utah State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2014. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.
In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

ND/Low - High - For water systems that have multiple sources of water, the Utah Division of

Drinking Water has given water systems the option of listing the test results of the constituents in one table, instead of multiple tables. To accomplish this, the lowest and highest values detected in the multiple sources are recorded in the same space in the report table.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Date- Because of required sampling time frames i.e. yearly, 3 years, 4 years and 6 years,

sampling dates may seem out-dated

TEST RESULTS							
Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	N	0	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2014	Naturally present in the environment
Fecal coliform and *E.coli*	N	0	N/A	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive	2014	Human and animal fecal waste
Turbidity for Ground Water	N	1-2	NTU	N/A	5	2013	Soil runoff
Inorganic Contaminants							
Barium	N	18-63	ppb	2000	2000	2013	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the AL	N	a. 299 b. 0	ppt	1300000	AL=1300000	2014	Corrosion of household plumbing systems; erosion of natural deposits
Lead a. 90% results b. # of sites that exceed the AL	N	a. 5 b. 0	ppt	0	AL=15000	2014	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	N	8-9	ppm	None set by EPA	None set by EPA	2013	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	7-10	ppm	1000	1000	2013	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (Total Dissolved solids)	N	102-116	ppm	2000	2000	2013	Erosion of natural deposits
Disinfection By-products							
TTHM [Total trihalomethanes]	N	1	ppb	0	80	2014	By-product of drinking water disinfection
Haloacetic Acids	N	ND	ppb	0	60	2014	By-product of drinking water disinfection
Chlorine	N	300	ppb	4000	4000	2014	Water additive used to control microbes
Radioactive Contaminants							
Alpha emitters	N	1	pCi/l	0	15	2013	Erosion of natural deposits

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Pleasant View is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We at Pleasant View work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Pleasant View
520 West Elberta Drive
Ogden, UT 84414

February 24, 2015

Colt Smith
CCR Compliance
Division of Drinking Water
P.O. Box 144830
Salt Lake City, Utah 84114-4830

Dear Mr. Smith:

Subject: Consumer Confidence Report for Pleasant View Water System, #29014

Enclosed is a copy of Pleasant View's Consumer Confidence Report. It contains the water quality information for our water system for the calendar year 2014 or the most recent sample data.

We have delivered this report to our customers by direct mail.

If you have any questions, please contact me at 801-782-8176.

Sincerely,

Tyson Jackson
Pleasant View Water System

Waiver Checklist Form

APPENDIX J

WAIVER CHECKLIST

Use Waivers: (R309-600-16(3))

Use waivers may be obtained if the chemicals within the pesticide and VOC parameter group have not been used in zones one, two or three in the last five years. To qualify, you must:

- ❑ Provide a list of chemicals used, disposed, stored, transported, and manufactured at each potential contamination source (PCS) within protection zones 1, 2 and 3 where the use of chemicals within the VOC and/or pesticide parameter groups is likely.

- ❑ Submit a dated statement, signed by the system's designated person, that none of the VOCs and/or pesticide within these respective parameter groups have been used, disposed, stored, transported, or manufactured within zones one, two and three in the last five years.

Susceptibility Waivers: (R309-600-16(4))

Susceptibility Waivers tolerate the use, disposal, storage, transport, and manufacturing of chemicals within zones one, two and three if the PWS can demonstrate that the source is not susceptible to contamination from them. To qualify, you must:

- ❑ Submit the monitoring results of at least one sample from the VOC and/or pesticide parameter group taken in the last six years. A non-detect result is required.

- ❑ Submitted a dated statement, signed by the systems designated person, that the PWS is confident that a susceptibility waiver for pesticides and or VOCs will not threaten public health.

- ❑ Verify that the source is developed in a protected aquifer (R309-600-6(1)v). To do this, you must:

    - ❑ Provide evidence that there is a naturally protective layer of clay, at least 30 ft thick, above the aquifer
    - ❑ Provide evidence that the well is grouted to 100 feet, and that the grout extends through the protective clay layer. You may apply for an exception to this if the well was drilled using a cable tool.
    - ❑ Provide evidence that the clay layer is laterally continuous throughout protection zone 2.

- ❑ Have a public education program, described in the DWSP management plan, that addresses proper use and disposal of pesticides and VOCs

Use and susceptibility waivers must be updated each time your Drinking Water Source Protection Plans are updated or they will lapse.

Reliably and Consistently Waivers: Rachael Cassady (536-4467) can discuss these criteria with you. The compliance section grants these waivers based on monitoring results.

Fax to 801-536-4211, attn Drinking Water Source Protection staff

Use Waiver Application for:

Name of Water System_____ _____
Name of Drinking Water Source(s)_____

I, _____, Designated Person (per R309-600) for the _____ Water System, hereby state that none of the volatile organic chemicals and/or pesticides within the respective parameter groups have been used in, disposed of, stored in, transported through, or manufactured within protection zones one, two or three (or within the management area, if applicable) in the last five years.

Signature:_____
Date:_____

Note: if applicable, you must provide a list of the chemicals used in, disposed of, stored in, transported through, or manufactured within protection zones one, two or three where the use of such chemicals within the volatile organic chemicals and/or pesticide parameter groups is likely.

In general, the presence of residences or roads (other than very limited use roads) through zones one, two or three implies that pesticides and volatile organic chemicals are used, and a use waiver in those cases would not be granted.

Fax to 801-536-4211, attn Drinking Water Source Protection staff

Susceptibility Waiver Application for:

Name of Water System:
Name of Drinking Water Source(s)

I, _____, Designated Person (per R309-600) for the _____Water System, hereby state that I am confident that a susceptibility waiver for VOCs and/or pesticides will not threaten public health.

Signature:_____
Date:_____

Note: We must have a record of the monitoring results of at least one sample from the VOC and/or pesticide parameter group taken in the last five years. A non-detect result is required.

State of Utah
GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF DRINKING WATER
Kenneth H. Bousfield, P.E.
Director

October 14, 2014

Fred C. Hellstrom
Pleasant View City Corporation
520 West Elberta Drive
Pleasant View City, Utah 84414

Dear Mr. Hellstrom:

Subject: Monitoring reduction waivers for Little Missouri Spring and Alder Creek Spring
Pleasant View Culinary Water - System no. 29014, Sources nos. WS001 and WS002

We appreciate your inquiry regarding monitoring waivers for Little Missouri Spring and Alder Creek Spring. Use monitoring waivers could not be continued for Little Missouri and Alder Creek Springs because of the presence of potential contamination sources and the potential for pesticides and volatile organic contaminants (VOCs) to be used, disposed, stored, or transported within zone three of each of the springs.

A reliably and consistently waiver for VOCs is in effect for Little Missouri Spring (WS001). For Little Missouri Spring to qualify for a reliably and consistently waiver for pesticides, pesticide samples must be collected during the first and second calendar quarters of 2015, and the results submitted to the Division of Drinking Water. A non-detectable analysis for each chemical within the pesticide parameter group(s) is required.

Alder Creek Spring (WS002) currently has a reliably and consistently waiver for VOCs, so samples are now due every three years. For Alder Creek Spring to qualify for a reliably and consistently waiver for pesticides, a pesticide sample must be collected during the third quarter of 2015, and the results submitted to the Division of Drinking Water. A non-detectable analysis for each chemical within the pesticide parameter group(s) is required.

An updated monitoring schedule was enclosed with our letter of August 20, 2014. You may contact Rachael Cassady at 801-536-4467 or rcassady@utah.gov if you have questions regarding reliably and consistently monitoring waivers or your monitoring schedule.

If you have any further questions regarding the Source Protection Program, please contact Mark Jensen at 801-536-4199 or mjensen@utah.gov. To help serve you more efficiently, please refer to your water system number in all correspondence.

Sincerely,

Kenneth H. Bousfield, P.E.
Director

MEJ/RC

cc: Matt Hartvigsen, Jones & Associates Engineers, 1716 East 5600 South, South Ogden, Utah 84403
Louis Cooper, Environmental Director, Weber-Morgan Health Department, lcooper@co.weber.ut.us

Other

APPENDIX K

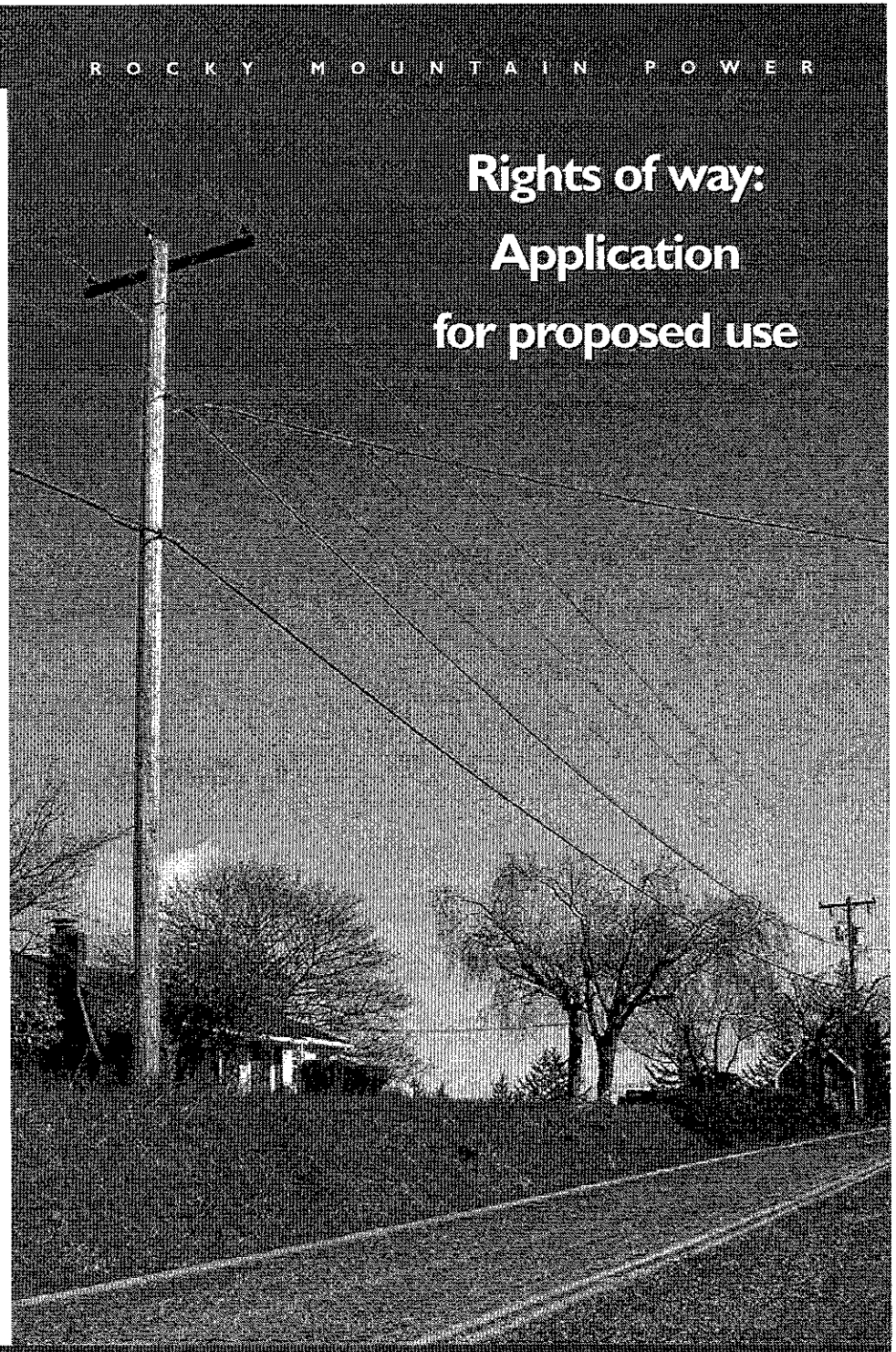
For questions or more information about line extensions, easements and Rocky Mountain Power's process, please call toll free at 1-888-221-7070.

ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

9/06

ROCKY MOUNTAIN POWER

Rights of way: Application for proposed use



Rights of Way Information

The power grid system and rights of way

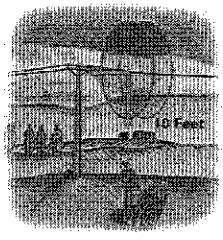
Electricity powers our world through a complex and carefully engineered network of transmission and distribution lines that carry electricity to homes and businesses. Rocky Mountain Power acquires easements to ensure that it has the legal right to maintain its power lines and the integrity of the system. The easement rights obtained are for the safety of the public, Rocky Mountain Power personnel and protection of Rocky Mountain Power's valuable facilities and equipment. Violations of the easement may indicate a violation of the National Safety Electric Code, and worse yet, could create serious – even deadly – threats to public safety.

Access

Rocky Mountain Power crews must be able to access facilities, including power poles, wires and transformers, at all times. The property owner assumes certain liability and financial consequences should Rocky Mountain Power have difficulty accessing its facilities and equipment.

Easements

Rocky Mountain Power acquires easements from private property owners to safely and efficiently operate, maintain and access power lines. These easements are recorded in county public records and are shown on title policies. Easements remain valid even when property is purchased or sold. Rocky Mountain Power may also have easement rights that do not appear on title policies but are never the less valid.



Trees and easements

Trees are one of the most common causes of electrical service interruptions. Generally, Rocky Mountain Power easements specify that the utility can prune or remove trees that hinder access to utility equipment and lines.

To reduce the need for pruning or removal, be sure you choose an appropriate tree for the space. Please visit rockymtnpower.net for a complete list of trees that are appropriate for planting near or under power lines.

Safety matters – always maintain a 10-foot Circle of Safety

Keep everything – you, the tools, the materials you are handling and the equipment you are operating – at least 10 feet away from all power lines. This is referred to as the "10-Foot Circle of Safety." Ten feet is the minimum required distance you must have when working near power lines of 50,000 volts or less. Not only is this an important safety rule, it is an Occupational Safety and Health Administration (OSHA) regulation, and it is a law. Those caught violating the Circle of Safety can be fined. **If the voltage is higher than 50,000 volts, even greater distance from the wires is required for safety.**

Your safety is important to Rocky Mountain Power. For information on safe distances to keep around high-voltage power lines, order a free brochure on the overhead line safety act for your state online at rockymtnpower.net.

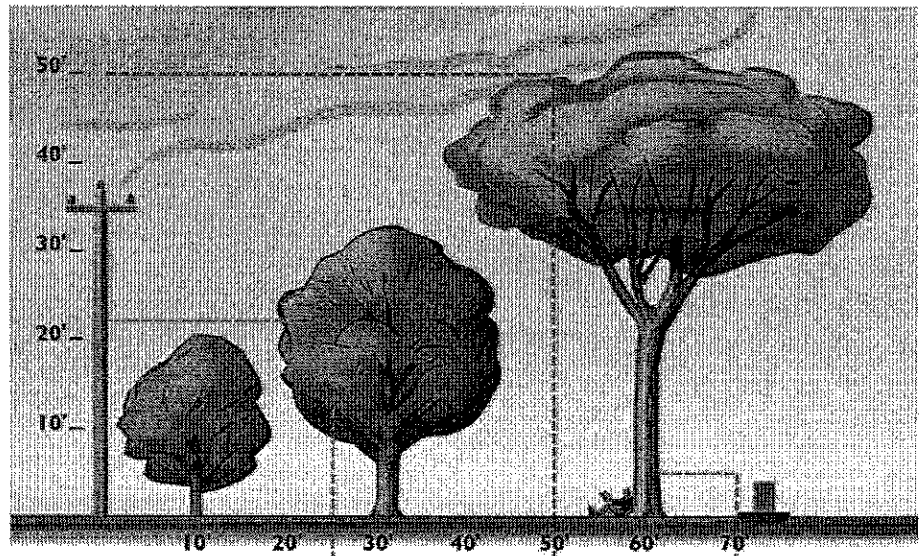
Digging

Property owners who need to dig on their property or easement must first call a locating service to identify and mark any underground utility lines.

Differences between distribution and transmission lines

	Distribution line	Transmission line
Distinction	Power is distributed from substations to customers	Power is transmitted from generating stations to substations
Categorization	By voltage rating	By voltage rating
Voltage	Lower voltage Ranges from 7.5 kV to 34 kV	Higher voltage Ranges from 46 kV to 500 kV
Easement width	Range from 10 feet up to 30 feet	Range from 25 feet up to 300 feet
Identification	Yellow metal license plate tag on pole	Silver metal numbers on pole (i.e. 1/47)

Typical Distribution line



Call Rocky Mountain Power at 1-888-221-7070 for the number of the locating service in your area. Rocky Mountain Power encourages landowners not to build on or near underground power lines. An easement document or local Rocky Mountain Power office will provide setback requirements.

Free safety education materials and presentations

Rocky MountainPower offers free safety brochures, posters, stickers, and videos to its customers and community members. Visit the safety catalog online at rockymynpower.net under "Safety," or call 1-800-375-7085 to order.

Please do not block easements

Rocky Mountain Power needs immediate access during outages and other emergencies to safely and quickly restore power. That response is significantly hindered if fences, livestock or other equipment block access.

If crews must access power lines, risk of damage or removal of property may result. Property owners who violate easement agreements are potentially liable for any property damage, fence replacement or any other damages that may result if Rocky Mountain Power needs to access its facilities. Not only does this pose a delay in restoring power, but crews must also take extra risks in removing these sometimes dangerous barriers.

Periodic access for normal maintenance activities is also necessary to ensure power safety and reliability.

Objects or buildings placed underneath or too close to power lines pose serious safety concerns and could be a violation of required clearances. Flammable items, such as hay bales, may catch fire. Long or tall items, such as irrigation pipes may accidentally be raised into overhead lines when being moved, electrocuting the person holding them. Since electricity can arc, it is possible to receive contact by coming close to a line without touching it.

For questions on proper access to easements, please call 1-888-221-7070 or visit rockymtnpower.net.

Never place the following items under or near a power line:

- houses, garages, sheds or barns
- second-story decks
- play equipment or tree houses
- flagpoles
- recreational vehicles that block access
- hot tubs or pools
- fences that block access
- antennas or satellite dishes
- scaffolding or ladders
- stored materials such as pipes, containers, hay bales
- mechanical equipment or flammable materials
- anything children or adults may climb

Completing the application

Landowners may use their property encumbered by a power line easement for any purpose provided that the use does not interfere with the easement rights. In order to ensure your proposed use is acceptable around power lines, please complete the attached application. In addition, be sure to include a detailed drawing of your proposed use. This should include all dimensions of the proposed use and measurements from Rocky Mountain Power's structures. Rocky Mountain Power will use this information to conduct a safety review, so please include as much detail as possible. If you have questions about completing the application, please contact Rocky Mountain Power at 1-888-221-7070 and request to speak with the Rights-of-Way department.

Please allow four to six weeks for review. Rocky MountainPower will notify you as to whether your proposed use is compatible with its easement.

ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

APPLICATION FOR PROPOSED USE OF ROCKY MOUNTAIN POWER RIGHT OF WAY

1. Name of applicant: _____

2. Name of company applicant is representing: _____

3. Address of applicant: _____

4. City, state & zip of applicant: _____

5. Phone # of applicant: Home: _____ Work: _____

Cell: _____ Fax: _____

6. Site address of proposed use: _____

7. City, state & zip of site address: _____

PROVIDE A COUNTY ASSESSOR'S MAP SHOWING THE PROPERTY BOUNDARY LINES OF PROPOSED USE IN RELATION TO ROCKY MOUNTAIN POWER'S FACILITIES (SHOW POLE NUMBERS INVOLVED). PROVIDE ALL NECESSARY MEASUREMENTS, INCLUDING DISTANCE FROM ROCKY MOUNTAIN POWER'S FACILITIES. (ATTACH DRAWINGS OF INTENDED USE IN RELATION TO ROCKY MOUNTAIN POWER FACILITIES)

_____ *POLE OR TOWER STRUCTURE IDENTIFICATION NUMBER

_____ *POLE OR TOWER STRUCTURE IDENTIFICATION NUMBER

* located on metal sign on utility pole or tower if overhead line

Tax lot or parcel number: _____

QUARTER SECTION(S)	SECTION(S)	TOWNSHIP	RANGE	COUNTY	STATE

Purpose for which right of way is to be used

❑ **Driveway/roadway**

❑ **Pipelines**

❑ **Electric service line**

❑ **Electric transmission line**

Width _____ Type: ❑ Gas ❑ Sewer ❑ Water Voltage _____

Material _____ Diameter _____ _____ _____ Underground _____

Private _____ Material _____ _____ _____ Overhead _____

Public _____ Buried depth _____ _____ _____

❑ Other use: (describe in detail proposed use)

_____

_____

(Please include all dimensions of proposed project)

_____

Applicant name **Applicant signature** **Applicant title**

Once completed, send with all pertinent drawings to:

Rocky Mountain Power
Attn: Rights-of-Way Department
1407 West North Temple #110
Salt Lake City, UT 84116

Once we have received the application, notification will be provided to applicant indicating denial of proposed usage or approval with conditions. Please be advised that the project may not commence prior to written approval from Rocky Mountain Power. Please allow 4 to 6 weeks for review and consideration of your application.

ROCKY MOUNTAIN POWER

POTENTIAL CONTAMINATION SOURCE SURVEY FORM

LITTLE MISSOURI SPRING

Priority Rank # _____ Zone _____

Business Name RESIDENTIAL AREAS

Potential Contamination Sources RESIDENTIAL HOMES - Household Hazardous Waste, Pesticides, Fertilizers

Contact Person PRIVATE RESIDENTS Owner/Operator _____

Address/Location NORTH SIDE OF PLEASANT VIEW CITY Telephone not applicable

Identify Potential Contamination Source Hazards:

Identify the material(s) listed below that are used, disposed, stored, transported, or manufactured within the protection area (i.e. 20,000 gal stored & sold/month, 400 gal discharged/day, or 10 lbs applied/acre/year).

Contaminant	Amount	Contaminant	Amount
1. PCB	N/A	17. Herbicides	unknown
2. Dioxin	N/A	18. Fungicides	N/A
3. Crude Oil	N/A	19. Antibiotics	N/A
4. Gasoline	N/A	20. Fertilizers	unknown
5. Diesel Oil	N/A	21. Metals	N/A
6. Other Distillate Fuel	N/A	22. Acids	N/A
7. Asphalt or other Residual	N/A	23. Organic Solvents	N/A
8. Animal or Vegetable Oil	N/A	24. Caustics	N/A
9. Waste Oil	N/A	25. Alcohols	N/A
10. Other Oil - MOTOR	N/A	26. Amines	N/A
11. Petroleum Solvents	N/A	27. Aldehydes	N/A
12. Naphtha	N/A	28. Radioactive Material	N/A
13. Mineral Spirits	N/A	29. Brines	N/A
14. Vermin Poisons	N/A	30. Sewage/Wastewater	N/A
15. Insecticides	N/A	31. Unknown/Other	unknown
16. Nematicides	N/A		

Storage Tank Data (if applicable)		
Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:

Are copies of Material Safety Data Sheets (MSDSs) for the substances identified above furnished at the potential contamination source? N/A

If this potential contamination source produces any waste streams, list them: NO

Does this potential contamination source result in any non-point source pollution? Describe:

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HA&L

POTENTIAL CONTAMINATION SOURCE SURVEY FORM

LITTLE MISSOURI SPRING

Priority Rank # _____ Zone 3

Business Name PLEASANT VIEW CITY CORPORATION

Potential Contamination Sources 4300 NORTH ROAD (TRUCKING/HAULING)

Contact Person PAUL ELSWORTH Owner/Operator PLEASANT VIEW CITY CORPORATION

Address/Location 520 WEST ELBERTA DR., PLEASANT VIEW, UTAH 84414 Telephone 801-782-8529

Identify Potential Contamination Source Hazards:

Identify the material(s) listed below that are used, disposed, stored, transported, or manufactured within the protection area (i.e. 20,000 gal stored & sold/month, 400 gal discharged/day, or 10 lbs applied/acre/year).

Contaminant:	Amount:	Contaminant:	Amount:
1. PCB	N/A	17. Herbicides	N/A
2. Dioxin	N/A	18. Fungicides	N/A
3. Crude Oil	N/A	19. Antibiotics	N/A
4. Gasoline	N/A	20. Fertilizers	N/A
5. Diesel Oil	N/A	21. Metals	N/A
6. Other Distillate Fuel	N/A	22. Acids	N/A
7. Asphalt or other Residual	N/A	23. Organic Solvents	N/A
8. Animal or Vegetable Oil	N/A	24. Caustics	N/A
9. Waste Oil	N/A	25. Alcohols	N/A
10. Other Oil - MOTOR	N/A	26. Amines	N/A
11. Petroleum Solvents	N/A	27. Aldehydes	N/A
12. Naphtha	N/A	28. Radioactive Material	N/A
13. Mineral Spirits	N/A	29. Brines	N/A
14. Vermin Poisons	N/A	30. Sewage/Wastewater	N/A
15. Insecticides	N/A	31. Unknown/Other	N/A
16. Nematicides	N/A		

Storage Tank Data (if applicable)

Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:

Are copies of Material Safety Data Sheets (MSDSs) for the substances identified above furnished at the potential contamination source? N/A

If this potential contamination source produces any waste streams, list them: UNLIKELY

Does this potential contamination source result in any non-point source pollution? Describe: UNLIKELY

POTENTIAL CONTAMINATION SOURCE SURVEY FORM

LITTLE MISSOURI SPRING

Priority Rank # _____ Zone 4

Business Name N/A

Potential Contamination Sources RESIDENTIAL SEPTIC SYSTEM

Contact Person DANIEL R. JONES Owner/Operator DANIEL R. JONES

Address/Location 4300 NORTH 900 WEST, PLEASANT VIEW, UTAH 84414 Telephone 801-782-7240

Identify Potential Contamination Source Hazards:

Identify the material(s) listed below that are used, disposed, stored, transported, or manufactured within the protection area (i.e. 20,000 gal stored & sold/month, 400 gal discharged/day, or 10 lbs applied/acre/year).

Contaminant:	Amount:	Contaminant:	Amount:
1. PCB	N/A	17. Herbicides	N/A
2. Dioxin	N/A	18. Fungicides	N/A
3. Crude Oil	N/A	19. Antibiotics	N/A
4. Gasoline	N/A	20. Fertilizers	N/A
5. Diesel Oil	N/A	21. Metals	N/A
6. Other Distillate Fuel	N/A	22. Acids	N/A
7. Asphalt or other Residual	N/A	23. Organic Solvents	N/A
8. Animal or Vegetable Oil	N/A	24. Caustics	N/A
9. Waste Oil	N/A	25. Alcohols	N/A
10. Other Oil - MOTOR	N/A	26. Amines	N/A
11. Petroleum Solvents	N/A	27. Aldehydes	N/A
12. Naphtha	N/A	28. Radioactive Material	N/A
13. Mineral Spirits	N/A	29. Brines	N/A
14. Vermin Poisons	N/A	30. Sewage/Wastewater	150 GAL/DAY 10 HORSES
15. Insecticides	N/A		
16. Nematicides	N/A	31. Unknown/Other	N/A

Storage Tank Data (if applicable)

Contaminant #: 30 Tank Volume: UNKNOWN Tank Material: CONCRETE ? Tank Age: UNKNOWN Indoors or Outdoors: OUTDOORS Above or Below Ground: BELOW Secondary Containment: NONE	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:

Are copies of Material Safety Data Sheets (MSDSs) for the substances identified above furnished at the potential contamination source? N/A

If this potential contamination source produces any waste streams, list them: UNLIKELY

Does this potential contamination source result in any non-point source pollution? Describe: UNLIKELY

POTENTIAL CONTAMINATION SOURCE SURVEY FORM

LITTLE MISSOURI SPRING

Priority Rank # _____ Zone 4

Business Name N/A

Potential Contamination Sources RESIDENTIAL SEPTIC SYSTEM

Contact Person LAMAR C. KAP Owner/Operator LAMAR C. KAP

Address/Location 4707 NORTH 900 WEST, PLEASANT VIEW, UTAH 84414 Telephone 801-782-7728

Identify Potential Contamination Source Hazards:

Identify the material(s) listed below that are used, disposed, stored, transported, or manufactured within the protection area (i.e. 20,000 gal stored & sold/month, 400 gal discharged/day, or 10 lbs applied/acre/year).

Contaminant:	Amount:	Contaminant:	Amount:
1. PCB	N/A	17. Herbicides	N/A
2. Dioxin	N/A	18. Fungicides	N/A
3. Crude Oil	N/A	19. Antibiotics	N/A
4. Gasoline	N/A	20. Fertilizers	N/A
5. Diesel Oil	N/A	21. Metals	N/A
6. Other Distillate Fuel	N/A	22. Acids	N/A
7. Asphalt or other Residual	N/A	23. Organic Solvents	N/A
8. Animal or Vegetable Oil	N/A	24. Caustics	N/A
9. Waste Oil	N/A	25. Alcohols	N/A
10. Other Oil - MOTOR	N/A	26. Amines	N/A
11. Petroleum Solvents	N/A	27. Aldehydes	N/A
12. Naphtha	N/A	28. Radioactive Material	N/A
13. Mineral Spirits	N/A	29. Brines	N/A
14. Vermin Poisons	N/A	30. Sewage/Wastewater	150 GAL/DAY
15. Insecticides	N/A	31. Unknown/Other	N/A
16. Nematicides	N/A		

Storage Tank Data (if applicable):

Contaminant #: 30 Tank Volume: UNKNOWN Tank Material: CONCRETE ? Tank Age: UNKNOWN Indoors or Outdoors: OUTDOORS Above or Below Ground: BELOW Secondary Containment: NONE	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:	Contaminant #: N/A Tank Volume: Tank Material: Tank Age: Indoors or Outdoors: Above or Below Ground: Secondary Containment:

Are copies of Material Safety Data Sheets (MSDSs) for the substances identified above furnished at the potential contamination source? N/A

If this potential contamination source produces any waste streams, list them: UNLIKELY

Does this potential contamination source result in any non-point source pollution? Describe: UNLIKELY